
APPENDIX A

MANHESP Letter

(See CD Included Separately)



Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

June 3, 2013

Scott E. Acone, Chief, Engineering/Planning Division
United States Department of the Army
New England District, Corps of Engineers
Attention: Michael Penko, Environmental Resources Section and Ellen Iorio, Project Manager
696 Virginia Road
Concord, Massachusetts 01742

| | |
|----------------------------|---|
| <i>Project Name:</i> | <i>Removal Action Work Plan for Contaminated Sediment in Plow Shop Pond</i> |
| <i>Proponent:</i> | <i>United States Army Corps of Engineers</i> |
| <i>Location:</i> | <i>Plow Shop Pond, Devens</i> |
| <i>NHESP Tracking No.:</i> | <i>12-31152</i> |

Dear Mr. Acone:

The Natural Heritage & Endangered Species Program of the MA Division of Fisheries and Wildlife (the "Division") has received and reviewed the revised Removal Action Work Plan (dated March 2013, received May 20, 2013) for the proposed removal of contaminated sediments and construction of a belowground barrier wall, and would like to offer the following comments.

Based on a review of the revised information, the Division's previous comments do not change (Division letter dated 10/16/2012); we continue to anticipate that the proposed project will not result in a prohibited "take" of state-listed species. It is our understanding that the project will conform to the following conditions, designed to avoid and minimize impacts to state-listed species:

1. In order to avoid long-term impacts to state-listed species and their habitats, project plans for each phase of the project will be modified to include a restoration plan for any upland areas to be disturbed by the proposed work. Restoration of upland areas will include revegetation with warm season grasses so as to provide high-quality habitat for Upland Sandpiper and Grasshopper Sparrow. The Division requests that, prior to the start of work on each phase of the project, a restoration plan be submitted to the Division for review.
2. In order to inform and improve restoration plans for Phases 2 and 3, restoration associated with Phase 1 will also include post-restoration, qualitative vegetation monitoring. The Division requests that a monitoring report be submitted to the Division for review prior to, or in conjunction with, the submission of restoration plans for Phases 2 and 3.
3. All state-listed species observed during project construction, restoration, and monitoring shall be reported to the Division through the submittal of a Rare Plant or Animal Observation Form, including photographs, characters used for identification, observer contact information, and a locus map.

The Division notes that it has reviewed and approved a restoration plan for Phase 1 of the project, as defined in the previous determination, and looks forward to receiving a Phase 1 restoration monitoring report so as to help inform restoration plans for Phases 2 and 3.

www.masswildlife.org

Division of Fisheries and Wildlife

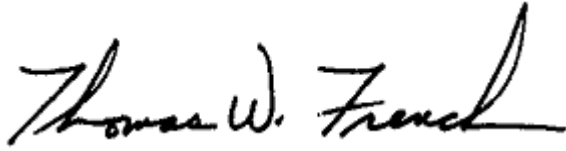
Temporary Correspondence: 100 Hartwell Street, Suite 230, West Boylston, MA 01583

Permanent: Field Headquarters, North Drive, Westborough, MA 01581 (508) 389-6300 Fax (508) 389-7890

An Agency of the Department of Fish and Game

If you have any questions about this letter, please contact Jesse Emerson Leddick, Endangered Species Review Biologist, at jesse.leddick@state.ma.us or 508-389-6386. We appreciate the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink that reads "Thomas W. French". The signature is written in a cursive style with a large, prominent 'T' and 'F'.

Thomas W. French, Ph.D.
Assistant Director

cc: Town of Ayer Conservation Commission



MassWildlife

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

Procedure for Contacting the Division When a Fish Kill Has Been Reported

When you receive a call about dead fish, **regardless of the circumstances**, follow these procedures for contacting the Division of Fisheries & Wildlife, the lead agency for coordinating fish kill response:

- Get the name and phone number of an actual witness to the fish kill
- Call the Fish Kill Coordinator, Richard Hartley at: office (508) 389-6330 or cell (508) 479-4092. If the Fish Kill Coordinator is unavailable, leave a message including the name and number of the witness and the location of the fish kill.
- From April 1st through October 1st, **Concurrent with contacting the Fish Kill Coordinator**, call the Fish Kill cell phone at (508) 450-5869.
- If you do not hear back from the Fish Kill Coordinator or the Fisheries Biologist on call within ½ hour, call the Department of Environmental Law Enforcement Radio Room which is staffed 24/7 at 1-800-632-8075.
- Outside of the standby time period (October 2nd through March 31st), if a fish kill report is received outside of normal working hours, 8:00-4:30 or on a weekend or holiday, leave a message on the Fish Kill Coordinator's work phone and cell phone. If you do not hear back from the Fish Kill Coordinator within ½ hour, call the Environmental Law Enforcement Radio Room at 1-800-632-8075.
- **All media inquiries must be forwarded to Reginald Zimmerman at (617) 626-1052**

www.masswildlife.org

Division of Fisheries and Wildlife

Field Headquarters, One Rabbit Hill Road, Westborough, MA 01581 (508) 389-6300 Fax (508) 389-7890

An Agency of the Department of Fisheries, Wildlife & Environmental Law Enforcement

APPENDIX B

Wetland Delineation Report for Plow Shop Pond

(See CD Included Separately)



SOVEREIGN CONSULTING INC.

May 31, 2012

TRANSMITTED VIA ELECTRONIC MAIL

Michael Penko
USACE New England District
696 Virginia Road
Concord, MA 01742-2751

Re: Wetland Delineation Report for Plow Shop Pond, Former Fort Devens Army Installation, Devens, MA
Contract #W912WJ-10-D-0003 Task Order 0005

Dear Mr. Penko:

Sovereign Consulting Inc. (Sovereign) is pleased to present this Wetland Delineation Report to the US Army Corps of Engineers (USACE) for the proposed Removal Actions at Plow Shop Pond at the Former Fort Devens Army Installation in Devens, Massachusetts.

If you have any questions regarding this submittal, please feel free to contact the undersigned at 508-339-3200.

Sincerely,
SOVEREIGN CONSULTING INC.

Laura Simkins
Project Ecologist

Ellyn Brixius
Senior Ecologist

Attachments: Wetland Delineation Report

cc: Sovereign File - AC001.005



WETLAND DELINEATION REPORT

FOR PLOW SHOP POND

AREA OF CONTAMINATION (AOC) 72

FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

31 MAY 2012

Prepared for:

US Army Corps of Engineers

New England District

Concord, Massachusetts

Prepared by:

Sovereign Consulting Inc.

Contract No.: W912WJ-10-D-0003

Delivery Order: 0005



SOVEREIGN CONSULTING INC.



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1.0 PROJECT DESCRIPTION

Sovereign Consulting Inc. (Sovereign) prepared this *Wetland Delineation Report* on behalf of the U.S. Army Corps of Engineers, New England District (USACE), for wetlands in the vicinity of Red Cove and the former Railroad Roundhouse area of Plow Shop Pond in Ayer, Massachusetts. The purposes of the activities described herein were to ascertain whether jurisdictional freshwater wetlands exist within areas of proposed disturbance associated with the planned Non-Time-Critical Removal Actions (NTCRAs) at Red Cove and Railroad Roundhouse (including site access), and if so, to delineate the wetland extent.

2.0 SITE AND BACKGROUND INFORMATION

2.1 Site Description

The 30-acre Plow Shop Pond is located northeast of Shepley's Hill Landfill (SHL), south of Molumco Industrial Park, and west of Grove Pond. The Red Cove area is located in the southwest corner of Plow Shop Pond along the northeast perimeter of SHL. The Railroad Roundhouse, also referred to as SA 71, is located at the southeast corner of Plow Shop Pond (**Figure 1**).

2.2 Area of Contamination (AOC) 72 History

Plow Shop Pond is a man-made pond created during the late 1800s by the damming of Nonacoicus Brook. SHL to the west of Plow Shop Pond was reportedly operating by the early 1940s and evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-nineteenth century. The landfill was capped in 1993 and contains a variety of waste materials, including incinerator ash, demolition debris, asbestos, sanitary wastes, spent shell casings, glass, and other wastes. Elevated groundwater arsenic concentrations at SHL have subsequently impacted the Red Cove area of Plow Shop Pond which is located downgradient of and in close proximity to the northern portion of the landfill. Red Cove is a shallow cove with a water depth of less than one meter. Total sediment thickness in Red Cove is between 0-2 meters.

The Railroad Roundhouse at the southeast corner of Plow Shop Pond, is the former location of a roundhouse operated by the Boston and Maine Railroad from approximately 1900 to 1935. The site consists of a 200 to 300 foot (ft) wide strip of land extending south from Plow Shop Pond along the northeast boundary of Devens for approximately 1,100 feet (**Figure 1**). Historical features included an array of railroad tracks, a coal trestle, ash pit, water tower, and several buildings. The roundhouse was located at the northern end of this strip, immediately adjacent to the southern shore of Plow Shop Pond. The shoreline adjacent to the railroad roundhouse was used as a dumping area for locomotive maintenance by-products. Available maps and aerial photographs indicate that all of the buildings except a brick storeroom and the water tower were removed by 1942.



2.3 Soil Survey

According to the US Department of Agriculture, Natural Resources Conservation Service (NRCS), the mapped soil unit found within the study area is:

- Carver loamy coarse sand , 8-15 percent slopes (259C)

Figure 2 is a Local Soil Map based on soil Geographic Information Systems (GIS) data set published for Middlesex County, Massachusetts. Carver loamy coarse sand is not listed on the NRCS National Hydric Soil List for Middlesex County, Massachusetts.

3.0 FIELD METHODOLOGY

Between 16 and 23 May 2012, Sovereign performed a wetland delineation that included routine assessments of vegetation, hydrology, and soil conditions along proposed removal areas and access points to work areas (**Figure 3**).

Wetland delineation procedures followed the “routine method” outlined in the Corps 1987 Wetlands Delineation Manual, as modified by U.S. Army Corps of Engineers Interim *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (2009). As discussed in the Northcentral and Northeast Regional Supplement, Ayer, Massachusetts is located in the Land Resource Region – R, Northeastern Forests. The applicable wetland determination data forms used during the wetland delineation are attached in **Attachment A**; photographs of the site are presented in **Attachment B**.

The standards and regulations established in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) were reviewed prior to the site delineation. The methodologies described within the Massachusetts Wetland Protection Act differ slightly from the USACE methodology. As such, the procedure for wetland delineation described in the Massachusetts document *Delineating Bordering Vegetated Wetlands* also was utilized during the May 2012 field investigation. Both the USACE and Massachusetts method delineations established the same wetland line (i.e. the USACE and Massachusetts lines did not diverge); therefore, there was no necessity to flag/delineate two separate wetland lines. A 100 ft Buffer Zone measured from the delineation line, as shown on **Figure 3**, is subject to protection under Massachusetts Regulations (310 CMR 10.02(1)(b)).

4.0 RESULTS

During the preliminary walk-over, evidence of previous disturbance at the Railroad Roundhouse portion of the study area was abundant. Past site activities were apparent, including historical construction of the railroad to the east and associated site development, a restored area where a previous removal action and fill application took place, and drainage efforts from SHL. The remaining portions of the study area, including Red Cove, appeared to be largely undisturbed with previous fill applications, drainage efforts, vegetation clearing/maintenance and/or development. Woody growth around the pond has been impacted by beaver, with Railroad Roundhouse being the



most heavily impacted portion of the study area. Plow Shop Pond is fenced along the southwest boundary to prevent access to the property. Although this is a man-made pond with past disturbance areas along the railroad and historical fill material present in some areas, the soil, vegetative communities and hydrology has not been substantially altered in such a way as to impact the extent of the wetland line. Therefore, the wetland delineation was pursued on the basis of *normal* circumstance.

According to the National Wetland Inventory (NWI), the only listed wetland in the vicinity is the pond itself, categorized as a limnetic wetland (L1UBHh). Field delineation observations concluded that additional wetland areas are present. A thin littoral zone (L2EM2Hh) approximately 0-3 ft in width lies along the pond shore within the study area. This zone is dominated by unidentified submerged aquatic vegetation (SAV) and emergent vegetation such as *Peltandra virginica* (green arrow arum). In addition, thin wetland areas lie within the floodplain and/or capillary fringe of the pond. These wetlands vary in width depending on the grade of the topography from the water's edge. Wetland A was defined as palustrine forested/scrub-shrub (PFO1Eb/PSS1Eb) wetland, most prevalent along the capillary fringe of the pond within primarily mixed hardwood and pine forested areas. Wetland A was present within the majority of the study area including Red Cove. Wetland B was defined as palustrine emergent/scrub-shrub (PEM1E/PSS1Eb) wetland primarily in the Railroad Roundhouse area where a past removal action occurred and the area has been restored.

As indicated by review of **Attachment 1**, five of six comprehensive wetland data plots - Wetland Data Plots 2 through 6 - exhibited co-occurrence of the three parameters that define jurisdictional wetlands (Wetland Data Plot 1 contained bricks and other fill material in soils and soil boring data was unavailable).

The soil profiles of the wetland test pits confirmed the presence of hydric soils within the boundary of the mapped soil units which are listed as non-hydric soils in Middlesex County, Massachusetts. Thus, the presence of standing water in the pond and flood zone areas adjacent to the top of bank have created hydric soil conditions over time. Further, the upland soil profiles within the same mapped soil units were evaluated and found to exhibit a distinct variation in value and chroma in comparison to the wetland soil profiles. The hydric soil profiles in the wetland test pits in combination with prominent wetland vegetation and hydrology indicators confirmed the data plots were within the wetland boundaries.

The wetland line was flagged primarily along a rise in topography (which ranged from a gentle slope to a steep incline of several feet) and where hydrophilic vegetation ceased to be dominant. Additionally, observations of plant adaptations such as buttressed tree trunks and shallow roots aided in determining the wetland line. The topographic change and vegetative cues represented the boundary between hydric and non-hydric soil. The six remaining sampling stations (Upland Data Plots 1 through 6) did not exhibit co-occurrence of all wetland indicator parameters and were used to characterize the upland areas adjacent to the wetlands. The delineated wetland line, wetland flag, and plot locations are presented on **Figure 3**, with magnified areas of Railroad Roundhouse on **Figure 4** and Red Cove on **Figure 5**.



Within the Wetland A areas including Red Cove, the topography varied from approximately 1-2 ft above the surface water to 5+ ft above the surface water. The grade of the topography also varied from shallow to steep. In general, the capillary fringe of the pond extended to the top of slope creating a narrow wetland area that supported hydrophytic vegetation such as *Alnus rugosa* (speckled alder), *Rhododendron canadense* (rhodora), *Cephalanthus occidentalis* (buttonbush), *Acer rubrum* (red maple), *Vaccinium corymbosum* (highbush blueberry), and *Betula populifolia* (gray birch). The soil profile, where available, exhibited grayish brown mineral soils with redoximorphic features. Wetland A is also present on the eastern side of Railroad Roundhouse, however, topography differed due to the railroad embankment. A floodplain was present which expanded the width of the wetland up to the railroad embankment. Within the floodplain, the soil profile contained mucky mineral soil and a high water table. Additional hydrophytic vegetation such as *Impatiens capensis* (jewelweed) and *Typha latifolia* (broadleaf cattail) were present.

The upland above Wetland A areas was characterized as an eastern white pine and oak dominated forest. The forested area exhibited the following general structure:

- Canopy: *Pinus strobus* (eastern white pine), *Quercus rubra* (northern red oak), and *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Betula populifolia* (gray birch).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Kalmia angustifolia* (sheep laurel), *Solidago rugosa* (rough-stemmed goldenrod), and *Maianthemum canadense* (Canada mayflower).

The Wetland B area, including the restored area of Railroad Roundhouse, contained low-lying flood zone areas along the pond edge, with increasing slopes outside of the flood zone. The pond edges consisted of layers of primarily well-sorted sandy soils at least 18 inches in depth with a high water column. Vegetation was dominated by *Alnus rugosa* (speckled alder), *Rhododendron canadense* (rhodora), *Betula populifolia* (gray birch), and *Onoclea sensibilis* (sensitive fern). The soil profile exhibited grayish brown mineral soils with redoximorphic features.

The upland above the Wetland B area exhibited the following general structure:

- Limited canopy: *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Lonicera japonica* (Japanese honeysuckle).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Andropogon virginicus* (broomsedge bluestem), *Achillea millefolium* (common yarrow), and *Comptonia peregrina* (sweet fern).

A man-made rip-rap drainage swale leading from SHL to the Railroad Roundhouse was created to convey excess stormwater from the surrounding landfill and upland areas to the pond during storm events. The area does not typically contain water and is not considered an ephemeral or intermittent stream. Although the swale contains facultative vegetation such as *Panicum virgatum* (switchgrass), *Populus deltoides* (eastern cottonwood), and *Lonicera japonica* (Japanese honeysuckle) the lack of hydrology and



hydric soil indicators confirms the swale is not a wetland. Therefore, this area was not included in the wetland determination area.

5.0 FINDINGS

Jurisdictional wetland determination is based on co-occurrence of wetland hydrology, hydric soil, and hydrophytic vegetation indicators. Using a detailed, ground-level assessment approach, co-occurring wetland indicator traits were evident along the perimeter of Plow Shop Pond within the study area.

In summary, Plow Shop Pond is a limnetic wetland (L1UBHh) with a narrow, non-persistent littoral zone (L2EM2Hh) along the shoreline. Two types of wetland areas were identified and delineated in the floodplain/capillary fringe of the pond. Wetland A, which encompasses Red Cove, is a palustrine forested/scrub-shrub wetland (PFO1Eb/PSS1Eb). Wetland B is a palustrine emergent/scrub-shrub wetland (PEM1E/PSS1Eb) located only within the Railroad Roundhouse area. The visual survey and foot traverse of the site on 16 through 23 May 2012 indicated that the work zones and a majority of the staging areas (as proposed in Removal Action Work Plan for Contaminated Sediment in Plow Shop Pond) are located within wetland and wetland transition/buffer areas.



6.0 REFERENCES

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Massachusetts Department of Environmental Protection - Division of Wetlands and Waterways. 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act - A Handbook*. Boston MA.

Natural Resources Conservation Service, United States Department of Agriculture, U.S. General Soil Map (STATSGO2) GIS Digital Data File. Accessed May 21, 2012.

U.S. Army Corps of Engineers. January 2012. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-09-19. Vicksburg, MS: U.S. Army Engineer Research and Development Center

Cowardin et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. National Wetland Inventory, U.S. Fish and Wildlife Service. May 21, 2012.



FIGURES



FIGURE 1 - SITE LOCUS MAP

PLOW SHOP POND - AOC 72/SA 71
FORT DEVENS, AYER, MA

Latitude: 42° 33' 20.27"N

Longitude: 71° 35' 31.21"W

0 600 1,200 2,400



Feet



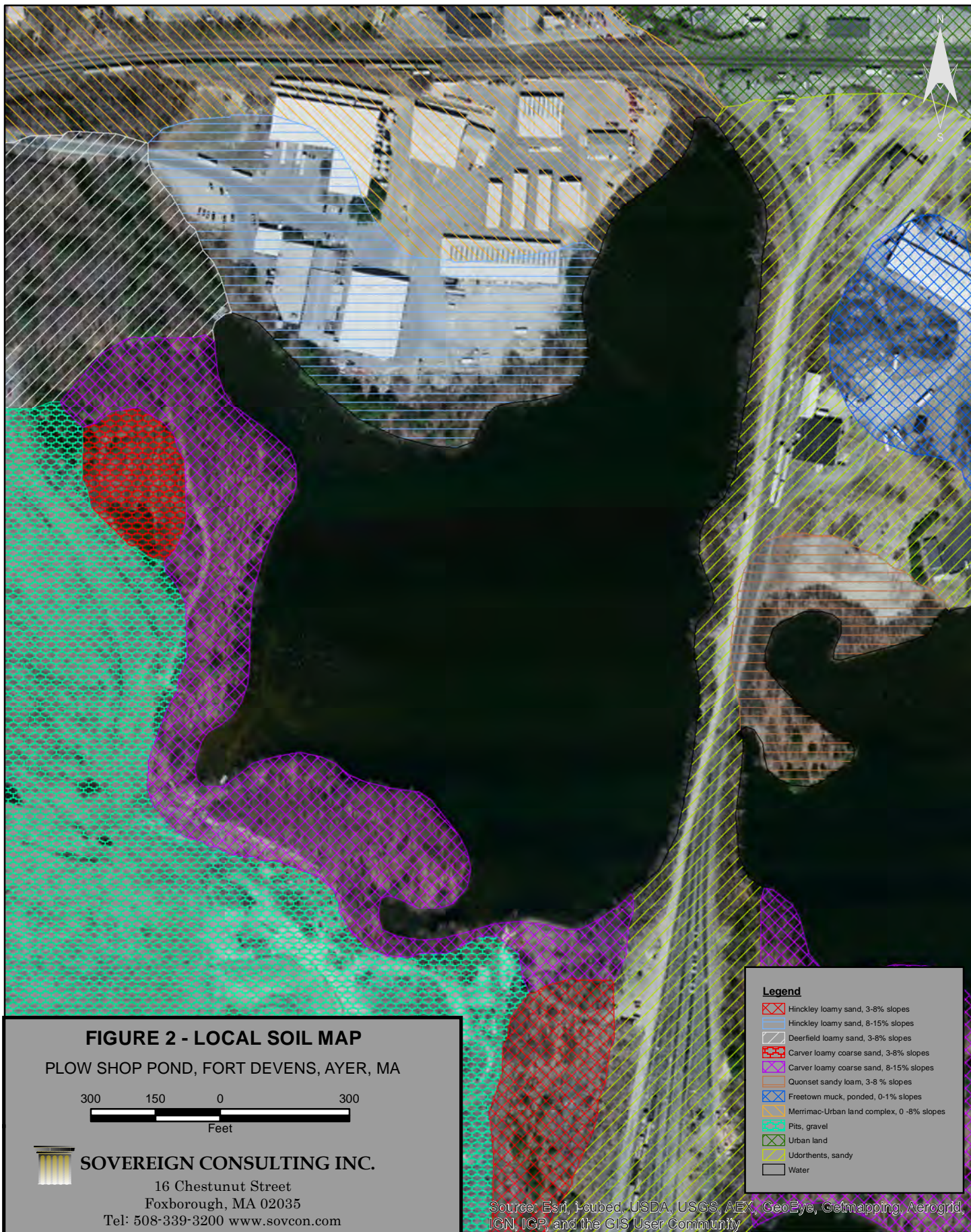
SOVEREIGN CONSULTING INC.

16 Chestnut Street

Foxborough, MA 02035

Tel: 508-339-3200, www.sovcon.com

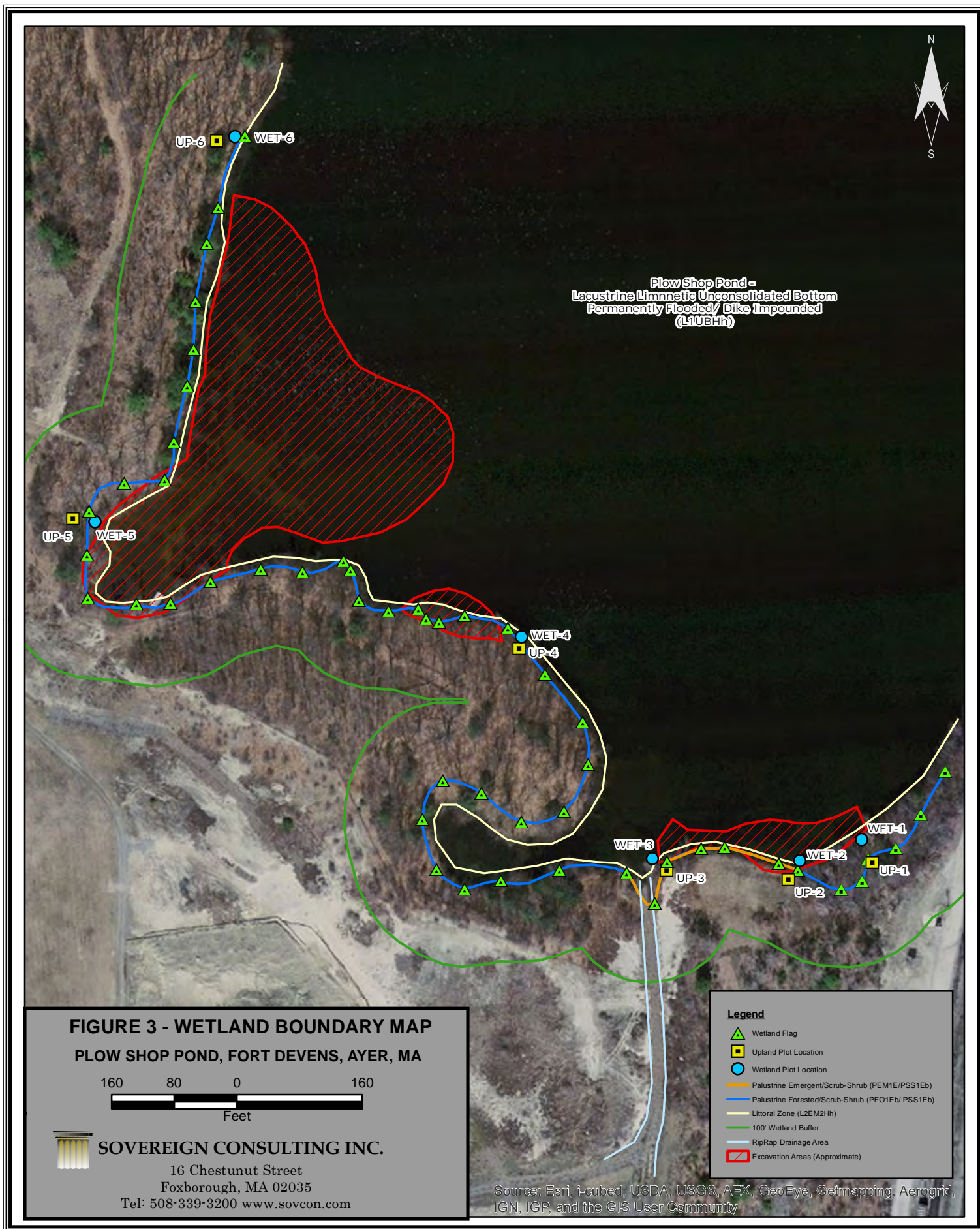
Imagery: © 2009 National Geographic Society, i-cubed 01/26/2012 ROV Revised 03/15/2012 ROV



NOTES:

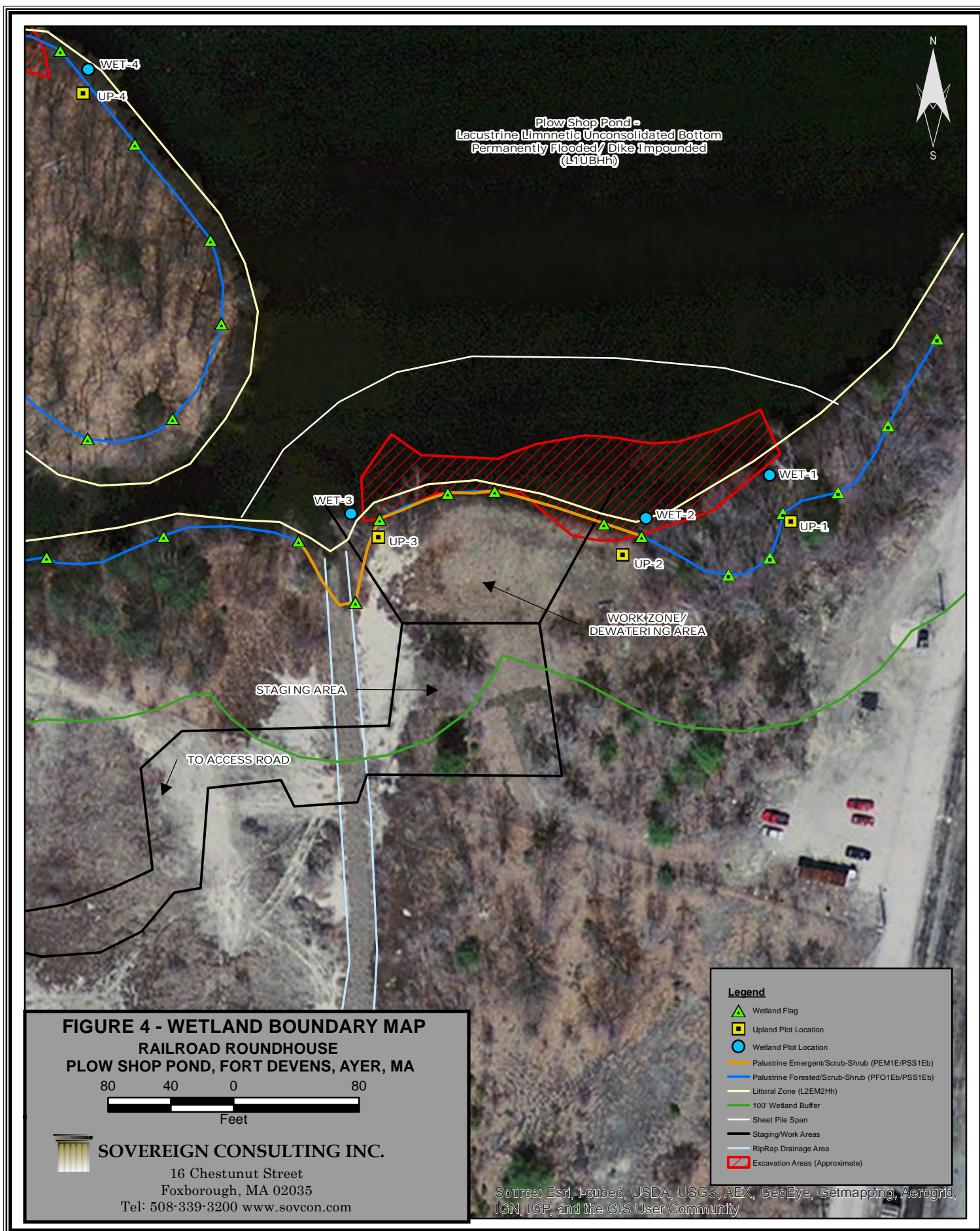
1) Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. U.S. General Soil Map (STATSGO2). Available online at <http://soildatamart.nrcs.usda.gov> . Accessed 05/21/2012

05/21/2012 ROV



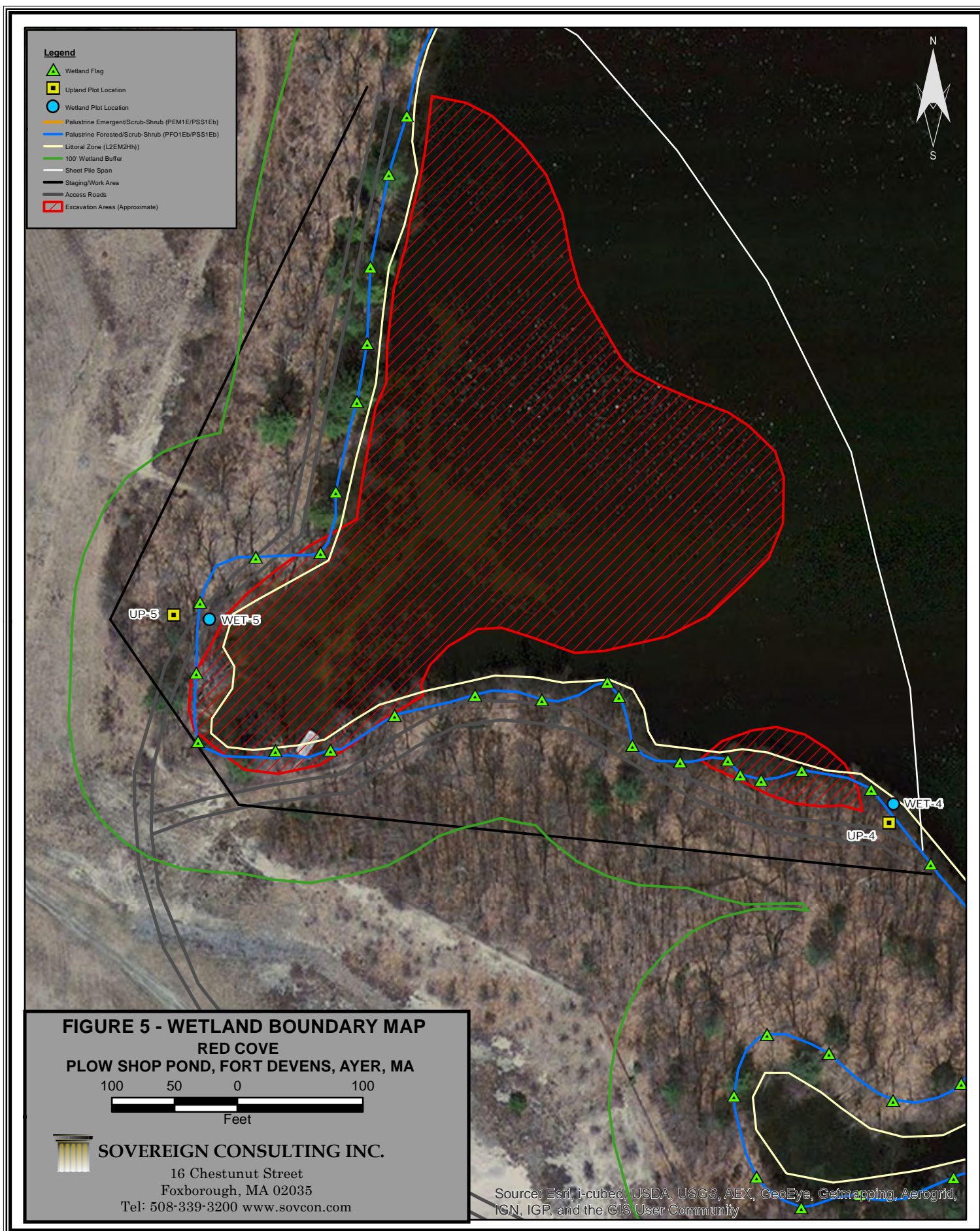
NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012. HORIZONTAL ACCURACY IS GENERALLY <1'.
 2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.
 3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
 Updated 05/30/2012 ROV



NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012. HORIZONTAL ACCURACY IS GENERALLY <1'.
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05/24/2012 ROV
 Updated 05/30/2012 ROV



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05/24/2012 ROV
 Updated 05/30/2012 ROV



ATTACHMENT A

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-1
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55363118 Long.: -71.59139 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located on a flood plain between the pond and an artificial slope to the east created by the railroad. Plot approx 10 ft from standing water at pond edge. At pond's edge, water is approximately 12" deep. | |

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes <u>X</u> No <u>X</u> Depth (inches): <u>6"</u> Saturation present? Yes <u>X</u> No <u>X</u> Depth (inches): <u>1"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | |
| Remarks: Plot located on a flat flood plain, elevated topography to the east causes drainage to the floodplain area. Plot located approx 10 ft from pond edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-1

| Tree Stratum | | | | | 50/20 Thresholds | | |
|---------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Acer rubrum</i> | 65 | Y | FAC | Tree Stratum | 19 | 48 | |
| 2 <i>Ulmus americana</i> | 30 | Y | FACW | Sapling/Shrub Stratum | 7 | 18 | |
| 3 | | | | Herb Stratum | 15 | 38 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>9</u> (A) Total Number of Dominant Species Across all Strata: <u>9</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 95 | = Total Cover | | Prevalence Index Worksheet Total % Cover of: OBL species <u>35</u> x 1 = <u>35</u> FACW species <u>105</u> x 2 = <u>210</u> FAC species <u>65</u> x 3 = <u>195</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>205</u> (A) <u>440</u> (B) Prevalence Index = B/A = <u>2.15</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Alnus rugosa</i> | 10 | Y | FACW | | | | |
| 2 <i>Vaccinium corymbosum</i> | 10 | Y | FACW | | | | |
| 3 <i>Rhododendron canadense</i> | 10 | Y | FACW | | | | |
| 4 <i>Cornus stolonifera</i> | 5 | N | FACW | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Impatiens capensis</i> | 25 | Y | FACW | | | | |
| 2 <i>Typha latifolia</i> | 20 | Y | OBL | | | | |
| 3 <i>Symplocarpus foetidus</i> | 15 | Y | OBL | | | | |
| 4 <i>Osmunda cinnamomea</i> | 15 | Y | FACW | Hydrophytic vegetation present? <u>Y</u> | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| Woody Vine Stratum | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |
| 43 | | | | | | | |
| 44 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 45 | | | | | | | |
| 46 | | | | | | | |
| 47 | | | | | | | |
| 48 | | | | | | | |
| 49 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 50 | | | | | | | |
| 51 | | | | | | | |
| 52 | | | | | | | |
| 53 | | | | | | | |
| 54 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 55 | | | | | | | |
| 56 | | | | | | | |
| 57 | | | | | | | |
| 58 | | | | | | | |
| 59 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 60 | | | | | | | |
| 61 | | | | | | | |
| 62 | | | | | | | |
| 63 | | | | | | | |
| 64 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 65 | | | | | | | |
| 66 | | | | | | | |
| 67 | | | | | | | |
| 68 | | | | | | | |
| 69 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 70 | | | | | | | |
| 71 | | | | | | | |
| 72 | | | | | | | |
| 73 | | | | | | | |
| 74 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 75 | | | | | | | |
| 76 | | | | | | | |
| 77 | | | | | | | |
| 78 | | | | | | | |
| 79 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 80 | | | | | | | |
| 81 | | | | | | | |
| 82 | | | | | | | |
| 83 | | | | | | | |
| 84 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 85 | | | | | | | |
| 86 | | | | | | | |
| 87 | | | | | | | |
| 88 | | | | | | | |
| 89 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 90 | | | | | | | |
| 91 | | | | | | | |
| 92 | | | | | | | |
| 93 | | | | | | | |
| 94 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 95 | | | | | | | |
| 96 | | | | | | | |
| 97 | | | | | | | |
| 98 | | | | | | | |
| 99 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 100 | | | | | | | |
| 101 | | | | | | | |
| 102 | | | | | | | |
| 103 | | | | | | | |
| 104 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 105 | | | | | | | |
| 106 | | | | | | | |
| 107 | | | | | | | |
| 108 | | | | | | | |
| 109 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 110 | | | | | | | |
| 111 | | | | | | | |
| 112 | | | | | | | |
| 113 | | | | | | | |
| 114 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 120 | | | | | | | |
| 121 | | | | | | | |
| 122 | | | | | | | |
| 123 | | | | | | | |
| 124 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 125 | | | | | | | |
| 126 | | | | | | | |
| 127 | | | | | | | |
| 128 | | | | | | | |
| 129 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 130 | | | | | | | |
| 131 | | | | | | | |
| 132 | | | | | | | |
| 133 | | | | | | | |
| 134 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 135 | | | | | | | |
| 136 | | | | | | | |
| 137 | | | | | | | |
| 138 | | | | | | | |
| 139 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 140 | | | | | | | |
| 141 | | | | | | | |
| 142 | | | | | | | |
| 143 | | | | | | | |
| 144 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 145 | | | | | | | |
| 146 | | | | | | | |
| 147 | | | | | | | |
| 148 | | | | | | | |
| 149 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 150 | | | | | | | |
| 151 | | | | | | | |
| 152 | | | | | | | |
| 153 | | | | | | | |
| 154 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 155 | | | | | | | |
| 156 | | | | | | | |
| 157 | | | | | | | |
| 158 | | | | | | | |
| 159 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 160 | | | | | | | |
| 161 | | | | | | | |
| 162 | | | | | | | |
| 163 | | | | | | | |
| 164 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 165 | | | | | | | |
| 166 | | | | | | | |
| 167 | | | | | | | |
| 168 | | | | | | | |
| 169 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 170 | | | | | | | |
| 171 | | | | | | | |
| 172 | | | | | | | |
| 173 | | | | | | | |
| 174 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 175 | | | | | | | |
| 176 | | | | | | | |
| 177 | | | | | | | |
| 178 | | | | | | | |
| 179 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 180 | | | | | | | |
| 181 | | | | | | | |
| 182 | | | | | | | |
| 183 | | | | | | | |
| 184 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 185 | | | | | | | |
| 186 | | | | | | | |
| 187 | | | | | | | |
| 188 | | | | | | | |
| 189 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 190 | | | | | | | |
| 191 | | | | | | | |
| 192 | | | | | | | |
| 193 | | | | | | | |
| 194 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 195 | | | | | | | |
| 196 | | | | | | | |
| 197 | | | | | | | |
| 198 | | | | | | | |
| 199 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 200 | | | | | | | |
| 201 | | | | | | | |
| 202 | | | | | | | |
| 203 | | | | | | | |
| 204 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 205 | | | | | | | |
| 206 | | | | | | | |
| 207 | | | | | | | |
| 208 | | | | | | | |
| 209 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 210 | | | | | | | |
| 211 | | | | | | | |
| 212 | | | | | | | |
| 213 | | | | | | | |
| 214 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 215 | | | | | | | |
| 216 | | | | | | | |
| 217 | | | | | | | |
| 218 | | | | | | | |
| 219 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 220 | | | | | | | |
| 221 | | | | | | | |
| 222 | | | | | | | |
| 223 | | | | | | | |
| 224 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 225 | | | | | | | |
| 226 | | | | | | | |
| 227 | | | | | | | |
| 228 | | | | | | | |
| 229 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 230 | | | | | | | |
| 231 | | | | | | | |
| 232 | | | | | | | |
| 233 | | | | | | | |
| 234 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 235 | | | | | | | |
| 236 | | | | | | | |
| 237 | | | | | | | |
| 238 | | | | | | | |
| 239 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 240 | | | | | | | |
| 241 | | | | | | | |
| 242 | | | | | | | |
| 243 | | | | | | | |
| 244 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 245 | | | | | | | |
| 246 | | | | | | | |
| 247 | | | | | | | |
| 248 | | | | | | | |
| 249 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 250 | | | | | | | |
| 251 | | | | | | | |

SOIL

Sampling Point: WET-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- ☐ Histisol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☒ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical from mapped soil series unit listing non-hydric soils.



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/23/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-1
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55355038 Long.: -71.5913406 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology X significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
|--|--|

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a reclaimed area that was previously disturbed during the construction of the railroad tracks to the east. Gravel stone/fill material present on the slope. Slope leads gradually down to the flood plain zone adjacent to the water's edge of the pond.

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
|--|--|

| | |
|---|--|
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a slope leading from the flood plain below to the railroad tracks above. Slope artificially created by the railroad tracks. Slope provides drainage from tracks above to flood plain below.

VEGETATION - Use scientific names of plants
Sampling Point: UP-1

| Tree Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
|-----------------------|------------------------------------|--|--|--|-------------------|---------------|------|---------------------|---------------------|--------------------|
| 1 | <i>Quercus bicolor</i> | | | | 50 | Y | FACW | | | |
| 2 | <i>Acer rubrum</i> | | | | 50 | Y | FAC | | | |
| 3 | <i>Pinus strobus</i> | | | | 10 | N | FACU | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 110 | = Total Cover | | | | |
| Sapling/Shurb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Betula populifolia</i> | | | | 5 | Y | FAC | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
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| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 5 | = Total Cover | | | | |
| Herb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Solidago rugosa</i> | | | | 50 | Y | FACU | | | |
| 2 | <i>Maianthemum canadense</i> | | | | 20 | Y | FACU | | | |
| 3 | <i>Rhus typhina</i> | | | | 5 | N | FACU | | | |
| 4 | <i>Ranunculus septentrionalis</i> | | | | 2 | N | FAC | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
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| 10 | | | | | | | | | | |
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| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| | | | | | 77 | = Total Cover | | | | |
| Woody Vine Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Toxicodendron radicans</i> | | | | 15 | Y | FAC | | | |
| 2 | <i>Parthenocissus quinquefolia</i> | | | | 15 | Y | FACU | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| | | | | | 30 | = Total Cover | | | | |

50/20 Thresholds

| | | |
|-----------------------|-----|-----|
| | 20% | 50% |
| Tree Stratum | 22 | 55 |
| Sapling/Shrub Stratum | 1 | 3 |
| Herb Stratum | 15 | 39 |
| Woody Vine Stratum | 6 | 15 |

Dominance Test Worksheet
 Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
 Total Number of Dominant Species Across all Strata: 7 (B)
 Percent of Dominant Species that are OBL, FACW, or FAC: 57.14% (A/B)

Prevalence Index Worksheet
 Total % Cover of:
 OBL species 0 x 1 = 0
 FACW species 50 x 2 = 100
 FAC species 72 x 3 = 216
 FACU species 100 x 4 = 400
 UPL species 0 x 5 = 0
 Column totals 222 (A) 716 (B)
 Prevalence Index = B/A = 3.23

Hydrophytic Vegetation Indicators:
☒ Rapid test for hydrophytic vegetation
☒ Dominance test is >50%
☐ Prevalence index is ≤3.0*
☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
☐ Problematic hydrophytic vegetation* (explain)
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:
Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

 Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL

Sampling Point: UP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|---------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-2 | 10YR 2/1 | | | | | | | Organic material |
| 2-12 | 10YR 2/1 | | | | | | | Dry, dk brown, sandy loam |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-2
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55355595 Long.: -71.59168321 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to steep bank leading up to railroad tracks. Plot within a forested edge. Fill material (bricks/concrete) present in soils due to past site disturbance. At pond's edge, water is approximately 12" deep. | |

HYDROLOGY

| | |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>~1-2"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located at base of steep bank, within 5' of pond edge. Water-stained leaves indicate flood zone. | |

| Tree Stratum | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
|------------------------------------|-------------------|------------------|------------------|-----------------|
| 1 <i>Acer rubrum</i> | | 50 | Y | FAC |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | 50 = | Total Cover | |
| | | | | |
| Sapling/Shurb Stratum | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 <i>Rhododendron canadense</i> | | 2 | Y | FACW |
| 2 <i>Cephalanthus occidentalis</i> | | 2 | Y | OBL |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | 4 = | Total Cover | |
| | | | | |
| Herb Stratum | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 <i>Onoclea sensibilis</i> | | 5 | Y | FACW |
| 2 <i>Symplocarpus foetidus</i> | | 5 | Y | OBL |
| 3 <i>Impatiens capensis</i> | | 5 | Y | FACW |
| 4 <i>Ludwigia palustris</i> | | 5 | Y | OBL |
| 5 <i>Typha latifolia</i> | | 2 | N | OBL |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| | | 22 = | Total Cover | |
| | | | | |
| Woody Vine Stratum | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| | | 0 = | Total Cover | |

| 50/20 Thresholds | 20% | 50% |
|-----------------------|-----|-----|
| Tree Stratum | 10 | 25 |
| Sapling/Shrub Stratum | 1 | 2 |
| Herb Stratum | 4 | 11 |
| Woody Vine Stratum | 0 | 0 |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

| | | |
|--------------------------|-------------|-----------|
| Total % Cover of: | | |
| OBL species | 14 | x 1 = 14 |
| FACW species | 12 | x 2 = 24 |
| FAC species | 50 | x 3 = 150 |
| FACU species | 0 | x 4 = 0 |
| UPL species | 0 | x 5 = 0 |
| Column totals | 76 (A) | 188 (B) |
| Prevalence Index = B/A = | <u>2.47</u> | |

Hydrophytic Vegetation Indicators:

X Rapid test for hydrophytic vegetation

X Dominance test is >50%

X Prevalence index is ≤3.0*

 Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

 Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present?

Y

Sphagnum spp present on rocks and downed branches.

SOIL

Sampling Point: WET-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | |
|---|--|
| ___ Histisol (A1) | ___ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| ___ Histic Epipedon (A2) | ___ Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| ___ Black Histic (A3) | ___ Loamy Mucky Mineral (F1) (LRR K, L) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Gleyed Matrix (F2) |
| ___ Stratified Layers (A5) | ___ Depleted Matrix (F3) |
| ___ Depleted Below Dark Surface (A11) | ___ Redox Dark Surface (F6) |
| ___ Thick Dark Surface (A12) | ___ Depleted Dark Surface (F7) |
| ___ Sandy Mucky Mineral (S1) | ___ Redox Depressions (F8) |
| ___ Sandy Gleyed Matrix (S4) | |
| ___ Sandy Redox (S5) | |
| ___ Stripped Matrix (S6) | |
| ___ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? N

| |
|----------|
| Remarks: |
|----------|

Soil boring data unavailable due to fill material (bricks/concrete) at ~2" bgs in multiple locations within flood zone next to pond. Assumed disturbed soil due to past site operations and presence of adjacent railroad bed. Although soil boring could not be completed, the presence of wetland hydrology and hydrophytic vegetation indicates that the plot is within a wetland.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-2
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55349217 Long.: -71.59173818 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located upslope from pond, on edge between forest and flat, previously disturbed area. Sandy fill material present in soils due to past site disturbance. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located upslope from pond (approx 10' higher in elevation) on edge of dry, grassy area previously disturbed during past site activities. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-2

| Tree Stratum | | | | | 50/20 Thresholds | | |
|----------------------------------|------------------|------------------|-----------------|--|---|-----|----|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Acer rubrum</i> | 10 | Y | FAC | | Tree Stratum | 2 | 5 |
| 2 | | | | | Sapling/Shrub Stratum | 10 | 25 |
| 3 | | | | | Herb Stratum | 10 | 25 |
| 4 | | | | | Woody Vine Stratum | 0 | 0 |
| 5 | | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across all Strata: <u>5</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>20.00%</u> (A/B) | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 10 = Total Cover | | | | Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>12</u> x 3 = <u>36</u> FACU species <u>97</u> x 4 = <u>388</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>109</u> (A) <u>424</u> (B) Prevalence Index = B/A = <u>3.89</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) <small>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</small> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Lonicera japonica</i> | 25 | Y | FACU | | | | |
| 2 <i>Vaccinium angustifolium</i> | 25 | Y | FACU | | | | |
| 3 | | | | | | | |
| 4 | | | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Solidago spp. >FAC</i> | 20 | Y | FACU | | | | |
| 2 <i>Comptonia peregrina</i> | 20 | Y | FACU | | | | |
| 3 <i>Andropogon virginicus</i> | 5 | N | FACU | | | | |
| 4 <i>Achillea millefolium</i> | 2 | N | FACU | | Hydrophytic vegetation present? <u>N</u> | | |
| 5 <i>Betula populifolia</i> | 2 | N | FAC | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |
| 43 | | | | | | | |
| 44 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 45 | | | | | | | |
| 46 | | | | | | | |
| 47 | | | | | | | |
| 48 | | | | | | | |
| 49 | 49 = Total Cover | | | | Hydrophytic vegetation present? <u>N</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |
| 43 | | | | | | | |
| 44 | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| 45 | | | | | | | |
| 46 | | | | | | | |
| 47 | | | | | | | |
| 48 | | | | | | | |
| 49 | 0 = Total Cover | | | | Hydrophytic vegetation present? <u>N</u> | | |
| | | | | | | | |
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| | | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL
Sampling Point: UP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|------------------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-4 | 10YR 3/2 | | | | | | | Dry, f-m brown sand, fill material |
| 4-12 | 5Y 5/4 | | | | | | | Dry, f-m brown sand, fill material |
| | | | | | | | | |
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*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

 Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of coarse loamy sands.



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-3
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55356289 Long.: -71.5923806 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to slope leading up to cleared, previously disturbed area. Plot within a forested edge. At pond's edge, water is approximately 12" deep. | |

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes <u>X</u> No _____ Depth (inches): <u>8"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>4"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located on a flat flood zone area at base of slope, within 5' of pond edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-3

| Tree Stratum | | | | | 50/20 Thresholds | | |
|---|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Betula populifolia</i> | 50 | Y | FAC | Tree Stratum | 10 | 25 | |
| 2 | | | | Sapling/Shrub Stratum | 4 | 11 | |
| 3 | | | | Herb Stratum | 4 | 11 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 50 = Total Cover | | | Prevalence Index Worksheet Total % Cover of: OBL species <u>4</u> x 1 = <u>4</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>94</u> (A) <u>244</u> (B) Prevalence Index = B/A = <u>2.60</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| 1 <i>Alnus rugosa</i> | 20 | Y | FACW | | | | |
| 2 <i>Cephalanthus occidentalis</i> | 2 | N | OBL | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 22 = Total Cover | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | | | |
| 1 <i>Onoclea sensibilis</i> | 10 | Y | FACW | | | | |
| 2 <i>Solidago spp. (assumed ulignosa)</i> | 10 | Y | FAC | | | | |
| 3 <i>Typha latifolia</i> | 2 | N | OBL | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 22 = Total Cover | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | 0 = Total Cover | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Sphagnum spp present on rocks and downed branches.

SOIL
Sampling Point: WET-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|----|----------------|----|-------|-------|---------|---------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-2 | 10YR 2/1 | | | | | | | Organic material |
| 2-6 | 10YR 4/2 | | 10YR 5/6 | 10 | C | | | Moist, gray-brown, m sand |
| 6-12 | 10YR 5/1 | 50 | | | | | | Moist, gray, m sand |
| 6-12 | 10YR 6/1 | 50 | | | | | | Moist, gray, m sand |
| | | | | | | | | |
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| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? ☒ Y

Remarks:

Depleted matrix, redox concentrations to 2-6" bgs. Standing water in boring hole at 8" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-3
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55352253 Long.: -71.59231691 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located upslope from pond edge and rip-rap drainage swale on edge of sandy path created by past site disturbance activities. Plot located in a previously cleared area. | |

HYDROLOGY

| | |
|---|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 48%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located along slope leading up from drainage swale to flat, cleared area above. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-3

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|------------------|------------------|-----------------|---|------------------|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Acer rubrum</i> | 10 | Y | FAC | Tree Stratum | 2 | 5 | |
| 2 | | | | Sapling/Shrub Stratum | 4 | 10 | |
| 3 | | | | Herb Stratum | 14 | 35 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet | | | |
| 6 | | | | Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) | | | |
| 7 | | | | Total Number of Dominant Species Across all Strata: <u>3</u> (B) | | | |
| 8 | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (A/B) | | | |
| 9 | | | | Prevalence Index Worksheet | | | |
| 10 | 10 = Total Cover | | | Total % Cover of: | | | |
| | | | | OBL species <u>0</u> x 1 = <u>0</u> | | | |
| | | | | FACW species <u>20</u> x 2 = <u>40</u> | | | |
| | | | | FAC species <u>10</u> x 3 = <u>30</u> | | | |
| | | | | FACU species <u>70</u> x 4 = <u>280</u> | | | |
| | | | | UPL species <u>0</u> x 5 = <u>0</u> | | | |
| | | | | Column totals <u>100</u> (A) <u>350</u> (B) | | | |
| | | | | Prevalence Index = B/A = <u>3.50</u> | | | |
| | | | | Hydrophytic Vegetation Indicators: | | | |
| | | | | <input type="checkbox"/> Rapid test for hydrophytic vegetation | | | |
| | | | | <input checked="" type="checkbox"/> Dominance test is >50% | | | |
| | | | | <input type="checkbox"/> Prevalence index is ≤3.0* | | | |
| | | | | <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | | | |
| | | | | <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) | | | |
| | | | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | | |
| | | | | Definitions of Vegetation Strata: | | | |
| | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | | | |
| | | | | Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. | | | |
| | | | | Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. | | | |
| | | | | Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| Sapling/Shrub Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Alnus rugosa</i> | 20 | Y | FACW | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 20 = Total Cover | | | | | | |
| Herb Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Comptonia peregrina</i> | 50 | Y | FACU | | | | |
| 2 <i>Rubus spp.</i> | 10 | N | FACU | | | | |
| 3 <i>Quercus prinoides</i> | 10 | N | FACU | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 70 = Total Cover | | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | 0 = Total Cover | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet) | | | | | | | |
| Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland. | | | | | | | |

SOIL

Sampling Point: UP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|----------------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-8 | 2.5Y 5/4 | | | | | | | Dry, m brown sand, fill material |
| 8-12 | 10YR 4/6 | | | | | | | Dry, m brown sand, fill material |
| | | | | | | | | |
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*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histisol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR R, MLRA 149B)
- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
☐ Loamy Mucky Mineral (F1) (LRR K, L)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Thin Dark Surface (S9) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of coarse loamy sands.



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-4
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
|--|--|

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing lake water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
|--|--|

| | |
|---|--|
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants
Sampling Point: WET-4

| Tree Stratum | | | | | 50/20 Thresholds | | |
|-----------------------|------------------------------------|---------------------|---------------------|--------------------|--|-----|-----|
| | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% |
| 1 | | | | | Tree Stratum | 0 | 0 |
| 2 | | | | | Sapling/Shrub Stratum | 10 | 25 |
| 3 | | | | | Herb Stratum | 8 | 20 |
| 4 | | | | | Woody Vine Stratum | 0 | 0 |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | | 0 | = Total Cover | | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | Number of Dominant Species that are OBL, FACW, or FAC: 5 (A) | | |
| 1 | <i>Rhododendron canadense</i> | 30 | Y | FACW | Total Number of Dominant Species Across all Strata: 5 (B) | | |
| 2 | <i>Betula populifolia</i> | 10 | Y | FAC | Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B) | | |
| 3 | <i>Acer rubrum</i> | 10 | Y | FAC | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | | 50 | = Total Cover | | Prevalence Index Worksheet | | |
| Herb Stratum | | | | | Total % Cover of: | | |
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | OBL species 0 x 1 = 0 | | |
| 1 | <i>Vaccinium corymbosum</i> | 30 | Y | FACW | FACW species 60 x 2 = 120 | | |
| 2 | <i>Betula populifolia</i> | 10 | Y | FAC | FAC species 30 x 3 = 90 | | |
| 3 | | | | | FACU species 0 x 4 = 0 | | |
| 4 | | | | | UPL species 0 x 5 = 0 | | |
| 5 | | | | | Column totals 90 (A) 210 (B) | | |
| 6 | | | | | Prevalence Index = B/A = 2.33 | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | | 40 | = Total Cover | | Hydrophytic Vegetation Indicators: | | |
| Woody Vine Stratum | | | | | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | Definitions of Vegetation Strata: | | |
| 1 | | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| | | 0 | = Total Cover | | Hydrophytic vegetation present? Y | | |

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on soil along bank of pond.

SOIL

Sampling Point: WET-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | |
|---|--|
| ___ Histisol (A1) | ___ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| ___ Histic Epipedon (A2) | ___ Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| ___ Black Histic (A3) | ___ Loamy Mucky Mineral (F1) (LRR K, L) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Gleyed Matrix (F2) |
| ___ Stratified Layers (A5) | ___ Depleted Matrix (F3) |
| ___ Depleted Below Dark Surface (A11) | ___ Redox Dark Surface (F6) |
| ___ Thick Dark Surface (A12) | ___ Depleted Dark Surface (F7) |
| ___ Sandy Mucky Mineral (S1) | ___ Redox Depressions (F8) |
| ___ Sandy Gleyed Matrix (S4) | |
| ___ Sandy Redox (S5) | |
| ___ Stripped Matrix (S6) | |
| ___ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-4
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. | |

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located upslope from the pond's edge on a higher plateau. Topography slopes gently down to pond edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-4

| Tree Stratum | | | | | 50/20 Thresholds | | |
|----------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 50 | Y | FACU | Tree Stratum | 16 | 40 | |
| 2 <i>Quercus palustris</i> | 20 | Y | FACW | Sapling/Shrub Stratum | 0 | 0 | |
| 3 <i>Acer rubrum</i> | 10 | N | FAC | Herb Stratum | 12 | 31 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across all Strata: <u>3</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>33.33%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 80 | = Total Cover | | Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>17</u> x 3 = <u>51</u> FACU species <u>105</u> x 4 = <u>420</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>142</u> (A) <u>511</u> (B) Prevalence Index = B/A = <u>3.60</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) <small>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</small> | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 0 | = Total Cover | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Vaccinium angustifolium</i> | 50 | Y | FACU | | | | |
| 2 <i>Quercus rubra</i> | 5 | N | FACU | | | | |
| 3 <i>Betula populifolia</i> | 5 | N | FAC | | | | |
| 4 <i>Kalmia angustifolia</i> | 2 | N | FAC | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 62 | = Total Cover | | Hydrophytic vegetation present? <u>N</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | 0 | = Total Cover | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL**Sampling Point:** UP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|----|----------------|---|-------|-------|---------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-3 | 10YR 2/1 | | | | | | | Organic material |
| 3-12 | 10YR 5/6 | 50 | | | | | | Dry, m brown sand, tr gravel |
| 3-12 | 10YR 5/4 | 50 | | | | | | Dry, m brown sand, tr gravel |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-5
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave
 Slope (%): 8-15% Lat.: 42.55474221 Long.: -71.59502604 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot at Red Cove. Plot located on a floodplain within a forested scrub-shrub wetland, approx. 10 ft from standing water at pond edge. At pond's edge, water is approximately 12" deep. | |

HYDROLOGY

| | |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u> </u> No <u>X</u> Depth (inches): _____ Water table present? Yes <u>X</u> No <u> </u> Depth (inches): <u>12"</u> Saturation present? Yes <u>X</u> No <u> </u> Depth (inches): <u>2-3"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Higher slopes all around drain to floodplain area next to pond's edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-5

| Tree Stratum | | | | | 50/20 Thresholds | | |
|-----------------------|----------------------------------|------------------|------------------|-----------------|---|-----|-----|
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% |
| 1 | <i>Acer rubrum</i> | 35 | Y | FAC | Tree Stratum | 14 | 35 |
| 2 | <i>Quercus rubra</i> | 35 | Y | FACU | Sapling/Shrub Stratum | 5 | 13 |
| 3 | | | | | Herb Stratum | 9 | 22 |
| 4 | | | | | Woody Vine Stratum | 0 | 0 |
| 5 | | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across all Strata: <u>5</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>80.00%</u> (A/B) | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | 70 | = Total Cover | | Prevalence Index Worksheet Total % Cover of: OBL species <u>20</u> x 1 = <u>20</u> FACW species <u>47</u> x 2 = <u>94</u> FAC species <u>35</u> x 3 = <u>105</u> FACU species <u>37</u> x 4 = <u>148</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>139</u> (A) <u>367</u> (B) Prevalence Index = B/A = <u>2.64</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| 1 | <i>Cephalanthus occidentalis</i> | 20 | Y | OBL | | | |
| 2 | <i>Viburnum recognitum</i> | 5 | Y | FACW | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | 25 | = Total Cover | | Hydrophytic vegetation present? <u>Y</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | | | |
| 1 | <i>Thelypteris palustris</i> | 40 | Y | FACW | | | |
| 2 | <i>Quercus bicolor</i> | 2 | N | FACW | | | |
| 3 | <i>Quercus rubra</i> | 2 | N | FACU | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | 44 | = Total Cover | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | 0 | = Total Cover | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL**Sampling Point:** WET-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|----|-------|-------|---------|--------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-2 | 10YR 2/1 | | | | | | | Organic material |
| 2-5 | 10YR 5/3 | | 10YR 3/6 | 20 | C | | | Moist, m gray sand |
| 5-12 | 10YR 5/1 | | 10YR 3/6 | 20 | C | | | Moist, m gray sand |
| | | | | | | | | |
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*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Depleted matrix, redox concentrations to 5-12" bgs. Soil saturated at 2-3" bgs, standing water in the soil boring at 12" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-5
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55475194 Long.: -71.59513224 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located upslope from the pond's edge. Topography slopes gently down to floodplain below. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-5

| Tree Stratum | | | | | 50/20 Thresholds | | |
|------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 35 | Y | FACU | Tree Stratum | 15 | 38 | |
| 2 <i>Pinus strobus</i> | 20 | Y | FACU | Sapling/Shrub Stratum | 2 | 5 | |
| 3 <i>Acer rubrum</i> | 20 | Y | FAC | Herb Stratum | 8 | 20 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across all Strata: <u>5</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>60.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 75 | = Total Cover | | Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>55</u> x 4 = <u>220</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>125</u> (A) <u>420</u> (B) Prevalence Index = B/A = <u>3.36</u> | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) <small>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</small> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Alnus rugosa</i> | 10 | Y | FACW | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 10 | = Total Cover | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Kalmia angustifolia</i> | 40 | Y | FAC | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 40 | = Total Cover | | Hydrophytic vegetation present? <u>Y</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | 0 | = Total Cover | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL

Sampling Point: UP-5

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-6
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55609147 Long.: -71.59436444 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
|--|--|

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing pond water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

| | |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
|---|--|

| | |
|---|--|
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants
Sampling Point: WET-6

| Tree Stratum | | | | | 50/20 Thresholds | | |
|---------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 30 | Y | FACU | Tree Stratum | 6 | 15 | |
| 2 | | | | Sapling/Shrub Stratum | 0 | 0 | |
| 3 | | | | Herb Stratum | 6 | 16 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across all Strata: <u>3</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 30 = Total Cover | | | Prevalence Index Worksheet Total % Cover of: OBL species <u>2</u> x 1 = <u>2</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>62</u> (A) <u>182</u> (B) Prevalence Index = B/A = <u>2.94</u> | | | |
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| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 0 = Total Cover | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Rhododendron canadense</i> | 20 | Y | FACW | | | | |
| 2 <i>Vaccinium corymbosum</i> | 10 | Y | FACW | | | | |
| 3 <i>Peltandra virginica</i> | 2 | N | OBL | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 32 = Total Cover | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | 0 = Total Cover | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Sphagnum spp present on soil along bank of pond.

SOIL

Sampling Point: WET-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | | | |
|-------|---|-------|----------------------------------|
| _____ | Histisol (A1) | _____ | Polyvalue Below Surface |
| _____ | Histic Epipedon (A2) | _____ | (S8) (LRR R, MLRA 149B) |
| _____ | Black Histic (A3) | _____ | Thin Dark Surface (S9) |
| _____ | Hydrogen Sulfide (A4) | _____ | (LRR R, MLRA 149B) |
| _____ | Stratified Layers (A5) | _____ | Loamy Mucky Mineral (F1) |
| _____ | Depleted Below Dark Surface (A11) | _____ | (LRR K, L) |
| _____ | Thick Dark Surface (A12) | _____ | Loamy Gleyed Matrix (F2) |
| _____ | Sandy Mucky Mineral (S1) | _____ | Depleted Matrix (F3) |
| _____ | Sandy Gleyed Matrix (S4) | _____ | Redox Dark Surface (F6) |
| _____ | Sandy Redox (S5) | _____ | Depleted Dark Surface (F7) |
| _____ | Stripped Matrix (S6) | _____ | Redox Depressions (F8) |
| _____ | Dark Surface (S7) (LRR R, MLRA 149B) | | |

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-6
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.5560784 Long.: -71.59445222 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. Slope leads from higher ground down to water's edge of the pond. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located upslope from pond on a steep slope. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-6

| Tree Stratum | | | | | 50/20 Thresholds | | |
|----------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 60 | Y | FACU | Tree Stratum | 20 | 50 | |
| 2 <i>Pinus strobus</i> | 40 | Y | FACU | Sapling/Shrub Stratum | 3 | 8 | |
| 3 | | | | Herb Stratum | 2 | 5 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 100 | = Total Cover | | Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>125</u> x 4 = <u>500</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>125</u> (A) <u>500</u> (B) Prevalence Index = B/A = <u>4.00</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) <small>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</small> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Hamamelis virginiana</i> | 15 | Y | FACU | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 15 | = Total Cover | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Vaccinium angustifolium</i> | 10 | Y | FACU | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 10 | = Total Cover | | Hydrophytic vegetation present? <u>N</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | 0 | = Total Cover | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: UP-6

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| _____ Histisol (A1) | _____ Polyvalue Below Surface |
| _____ Histic Epipedon (A2) | _____ (S8) (LRR R, MLRA 149B) |
| _____ Black Histic (A3) | _____ Thin Dark Surface (S9) |
| _____ Hydrogen Sulfide (A4) | _____ (LRR R, MLRA 149B) |
| _____ Stratified Layers (A5) | _____ Loamy Mucky Mineral (F1) |
| _____ Depleted Below Dark Surface (A11) | _____ (LRR K, L) |
| _____ Thick Dark Surface (A12) | _____ Loamy Gleyed Matrix (F2) |
| _____ Sandy Mucky Mineral (S1) | _____ Depleted Matrix (F3) |
| _____ Sandy Gleyed Matrix (S4) | _____ Redox Dark Surface (F6) |
| _____ Sandy Redox (S5) | _____ Depleted Dark Surface (F7) |
| _____ Stripped Matrix (S6) | _____ Redox Depressions (F8) |
| _____ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ Polyvalue Below Surface (S8) (**LRR K, L**)
☐ Thin Dark Surface (S9) (**LRR K, L**)
☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

| | |
|--|--|
| Restrictive Layer (if observed): Type: _____ Depth (inches): _____ | Hydric soil present? <u> N </u> |
|--|--|

Remarks:



ATTACHMENT B

Photographic Log



Photo #1: #N/A #N/A #N/A
#N/A



Photo #2: Date - 5/23/2012 Direction - West File - DSCN1251
Description - View west along wetland boundary near toe of slope on edge of pond at Railroad Roundhouse.



Photo #3: Date - 5/23/2012 Direction - South File - DSCN1252
 Description - View of upland plot 2 (UP-2); wetland continues east and west.



Photo #4: Date - 5/23/2012 Direction - South File - DSCN1254
 Description - View south from wetland line (left of frame), showing sandy trail running to the left of drainage rip-rap.



Photo #5: Date - 5/17/2012 Direction - South File - Picture 109
 Description - View of rip-rap where the drainage source drains to pond.



Photo #6: Date - 5/17/2012 Direction - Southeast File - Picture 115
 Description - Southeast view of unnamed cove west of Railroad Roundhouse.



Photo #7: Date - 5/17/2012

Direction - East

File - Picture 138

Description - Wetland plot 4 (WET-4).

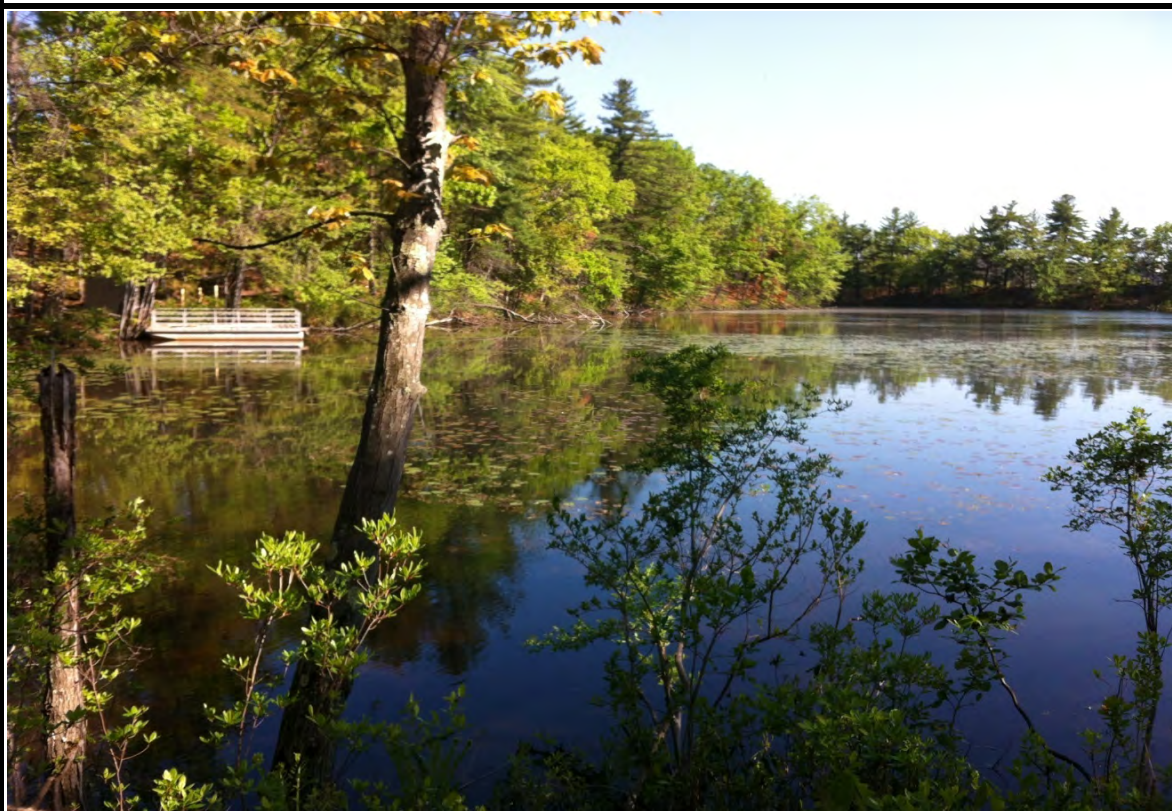


Photo #8: Date - 5/17/2012

Direction - Northeast

File - Picture 123

Description - View of Red Cove. Wetland is only in capillary fringe of pond.



Photo #9: Date - 5/17/2012 Direction - Southeast File - Picture 130
 Description - Wetland plot 5 (WET-5) at Red Cove.



Photo #10: Date - 5/17/2012 Direction - South File - Picture 132
 Description - South view of Red Cove from flagged line.



Photo #11: Date - 5/17/2012 Direction - Northeast File - Picture 136
 Description - Northeast view of wetland plot 6 (WET-6).

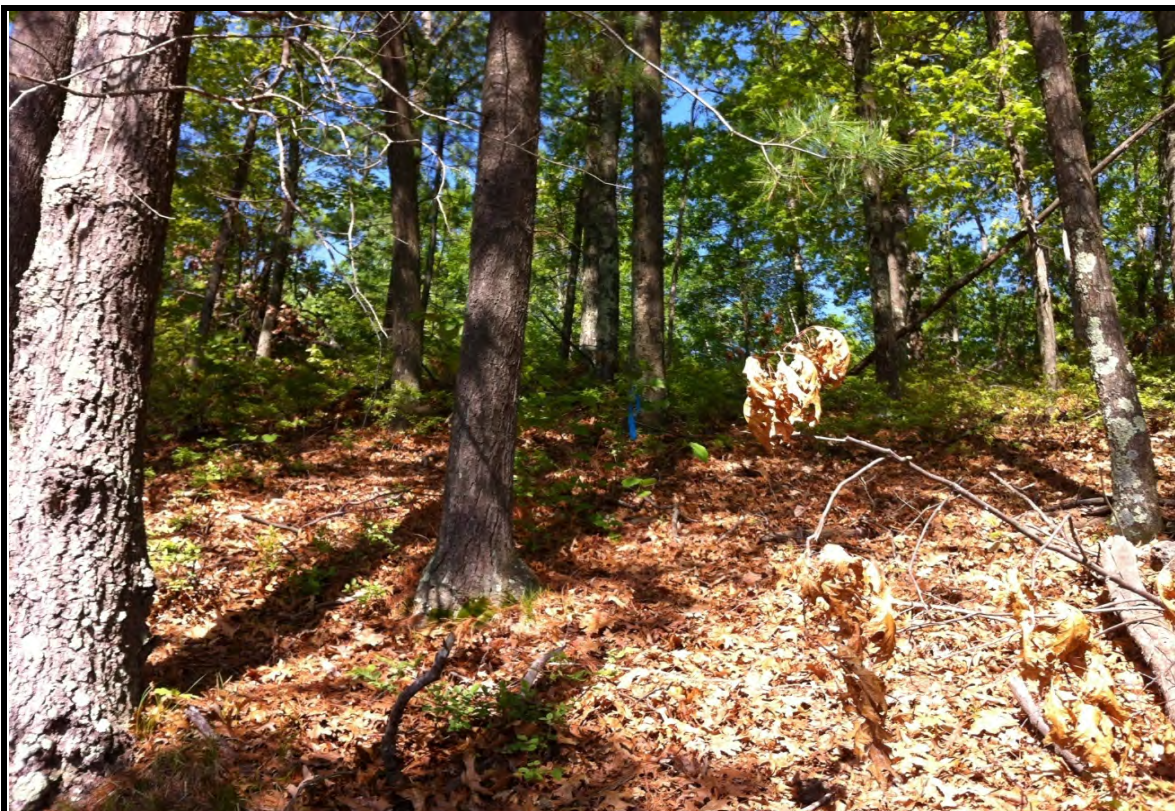


Photo #12: Date - 5/17/2012 Direction - West File - Picture 137
 Description - Upland plot 6 (UP-6).



WETLAND DELINEATION REPORT

FOR PLOW SHOP POND

AREA OF CONTAMINATION (AOC) 72

FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

28 JUNE 2013

Prepared for:

US Army Corps of Engineers

New England District

Concord, Massachusetts

Prepared by:

Sovereign Consulting Inc.

Contract No.: W912WJ-10-D-0003

Delivery Order: 0005



SOVEREIGN CONSULTING INC.



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List of Attachments

| | |
|--------------|----------------------------------|
| Attachment A | Wetland Determination Data Forms |
| Attachment B | Photograph Log |

1.0 PROJECT DESCRIPTION

Sovereign Consulting Inc. (Sovereign) prepared this *Wetland Delineation Report* on behalf of the U.S. Army Corps of Engineers, New England District (USACE), for wetlands in the vicinity of Red Cove and the former Railroad Roundhouse area of Plow Shop Pond in Ayer, Massachusetts. The purposes of the activities described herein were to ascertain whether jurisdictional freshwater wetlands exist within areas of proposed disturbance associated with the planned Non-Time-Critical Removal Actions (NTCRAs) at Red Cove and Railroad Roundhouse (including site access), and if so, to delineate the wetland extent.

2.0 SITE AND BACKGROUND INFORMATION

2.1 Site Description

The 30-acre Plow Shop Pond is located northeast of Shepley's Hill Landfill (SHL), south of Molumco Industrial Park, and west of Grove Pond. The Red Cove area is located in the southwest corner of Plow Shop Pond along the northeast perimeter of SHL. The Railroad Roundhouse, also referred to as SA 71, is located at the southeast corner of Plow Shop Pond (**Figure 1**).

2.2 Area of Contamination (AOC) 72 History

Plow Shop Pond is a man-made pond created during the late 1800s by the damming of Nonacoicus Brook. SHL to the west of Plow Shop Pond was reportedly operating by the early 1940s and evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-nineteenth century. The landfill was capped in 1993 and contains a variety of waste materials, including incinerator ash, demolition debris, asbestos, sanitary wastes, spent shell casings, glass, and other wastes. Elevated groundwater arsenic concentrations at SHL have subsequently impacted the Red Cove area of Plow Shop Pond which is located downgradient of and in close proximity to the northern portion of the landfill. Red Cove is a shallow cove with a water depth of less than one meter. Total sediment thickness in Red Cove is between 0-2 meters.

The Railroad Roundhouse at the southeast corner of Plow Shop Pond, is the former location of a roundhouse operated by the Boston and Maine Railroad from approximately 1900 to 1935. The site consists of a 200 to 300 foot (ft) wide strip of land extending south from Plow Shop Pond along the northeast boundary of SHL for approximately 1,100 feet (**Figure 1**). Historical features included an array of railroad tracks, a coal trestle, ash pit, water tower, and several buildings. The roundhouse was located at the northern end of this strip, immediately adjacent to the southern shore of Plow Shop Pond. The shoreline adjacent to the railroad roundhouse was used as a dumping area for locomotive maintenance by-products. Available maps and aerial photographs indicate that all of the buildings except a brick storeroom and the water tower were removed by 1942.

2.3 Soil Survey

According to the US Department of Agriculture, Natural Resources Conservation Service (NRCS), the mapped soil unit found within the study area is:

- Carver loamy coarse sand , 8-15 percent slopes (259C)
- Deerfield loamy sand, 3-8 percent slopes (256B)
- Hinckley loamy sand, 8-15 percent slopes (253B)
- Udorthents, sandy (653)

Figure 2 is a Local Soil Map based on soil Geographic Information Systems (GIS) data set published for Middlesex County, Massachusetts. None of the soils above are listed on the NRCS National Hydric Soil List for Middlesex County, Massachusetts.

3.0 FIELD METHODOLOGY

Between 16 and 23 May 2012 and between 13 and 19 June 2013, Sovereign performed a wetland delineation that included routine assessments of vegetation, hydrology, and soil conditions along proposed removal areas and access points to work areas (**Figure 3**).

Wetland delineation procedures followed the “routine method” outlined in the Corps 1987 Wetlands Delineation Manual, as modified by U.S. Army Corps of Engineers *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (2012). As discussed in the Northcentral and Northeast Regional Supplement, Ayer, Massachusetts is located in the Land Resource Region – R, Northeastern Forests. The applicable wetland determination data forms used during the wetland delineation are attached in **Attachment A**; photographs of the site are presented in **Attachment B**.

The standards and regulations established in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) were reviewed prior to the site delineation. The methodologies described within the Massachusetts Wetland Protection Act differ slightly from the USACE methodology. As such, the procedure for wetland delineation described in the Massachusetts document *Delineating Bordering Vegetated Wetlands* also was utilized during the May 2012 and June 2013 field investigations. Both the USACE and Massachusetts method delineations established the same wetland line (i.e. the USACE and Massachusetts lines did not diverge); therefore, there was no necessity to flag/delineate two separate wetland lines. A 100 ft Buffer Zone measured from the delineation line, as shown on **Figure 3**, is subject to protection under Massachusetts Regulations (310 CMR 10.02(1)(b)).

4.0 RESULTS

During the preliminary walk-over in May 2012, evidence of previous disturbance at the Railroad Roundhouse portion of the study area was abundant. Past site activities were apparent, including historical construction of the railroad to the east and associated site development, a restored area where a previous removal action and fill application took place, and drainage efforts from SHL. The remaining portions of the study area,



including Red Cove, appeared to be largely undisturbed with previous fill applications, drainage efforts, vegetation clearing/maintenance and/or development. Woody growth around the pond has been impacted by beaver, with Railroad Roundhouse being the most heavily impacted portion of the study area. Plow Shop Pond is fenced along the southwest boundary to prevent access to the property. Although this is a man-made pond with past disturbance areas along the railroad and historical fill material present in some areas, the soil, vegetative communities and hydrology has not been substantially altered in such a way as to impact the extent of the wetland line. Therefore, the wetland delineation in May 2012 was pursued on the basis of *normal* circumstance. It should be noted that in June 2013, heavy rains caused extensive flooding of Nonacoicus Brook and areas adjacent to the dam at the northwest corner of the pond. In addition, the water level in the pond was elevated approximately 2-3 ft and flooding of upland areas outside of the typical littoral zone was observed. Hydrology in floodplain areas surrounding the dam was altered to a degree that *normal* circumstance was absent. Therefore, in these areas, Sovereign relied heavily on vegetation and soil indicators to delineate wetland extents.

According to the National Wetland Inventory (NWI), the pond itself is categorized as a limnetic wetland (L1UBHh). The forested area on the floodplain of Nonacoicus Brook at the northwest corner of the pond is listed as a palustrine forested wetland (PFO1E) (Wetland A). Field delineation observations concluded that additional wetland areas are present. A thin littoral zone (L2EM2Hh) approximately 0-3 ft in width lies along the pond shore within the study area. This zone is dominated by unidentified submerged aquatic vegetation (SAV) and emergent vegetation such as *Peltandra virginica* (green arrow arum). In addition, thin wetland areas lie within the floodplain and/or capillary fringe of the pond. These wetlands vary in width depending on the grade of the topography from the water's edge. Wetland B was defined as palustrine forested/scrub-shrub (PFO1Eb/PSS1Eb) wetland, most prevalent along the capillary fringe of the pond within primarily mixed hardwood and pine forested areas. Wetland B was present within the majority of the study area including Red Cove. Wetland C was defined as palustrine emergent/scrub-shrub (PEM1E/PSS1Eb) wetland primarily in the Railroad Roundhouse area where past disturbances occurred.

As indicated by review of **Attachment 1**, eleven of twelve comprehensive wetland data plots exhibited co-occurrence of the three parameters that define jurisdictional wetlands (Wetland Data Plot 2 contained bricks and other fill material in soils and soil boring data was unavailable).

The soil profiles of the wetland test pits confirmed the presence of hydric soils within the boundary of the mapped soil units which are listed as non-hydric soils in Middlesex County, Massachusetts. Thus, the presence of standing water in the pond and flood zone areas adjacent to the top of bank of the pond and Nonacoicus Brook have created hydric soil conditions over time. Further, the upland soil profiles within the same mapped soil units were evaluated and found to exhibit a distinct variation in value and chroma in comparison to the wetland soil profiles. The hydric soil profiles in the wetland test pits in combination with prominent wetland vegetation and hydrology indicators confirmed the data plots were within the wetland boundaries. Where



hydrology did not conform to *normal* circumstance due to the flooding of June 2013, vegetation and hydric soil indicators were relied upon. This was most prevalent in the floodplain of Nonacoicus Brook west of the dam.

The wetland line was flagged primarily along a rise in topography (which ranged from a gentle slope to a steep incline of several feet) and where hydrophilic vegetation ceased to be dominant. Additionally, observations of plant adaptations such as buttressed tree trunks and shallow roots aided in determining the wetland line. The topographic change and vegetative cues represented the boundary between hydric and non-hydric soil. The twelve remaining sampling stations (Upland Data Plots 1 through 12) did not exhibit co-occurrence of all wetland indicator parameters and were used to characterize the upland areas adjacent to the wetlands. The delineated wetland line, wetland flag, and plot locations are presented on **Figure 3**, with magnified areas of Railroad Roundhouse on **Figure 4**, Red Cove on **Figure 5**, and Nonacoicus Brook on **Figure 6**.

The Wetland A area, including the area surrounding Nonacoicus Brook and the dam, contained a low-lying flood zone running along the brook's edge which extended up to 200 ft into the forest on the southwest side of the brook. In this floodplain, undulating microtopography resulted in low areas where standing water was retained. On the north side of Nonacoicus Brook, the bank rose steeply, thereby limiting the potential flood zone area to the north. During the June 2013 delineation, the dam had overflowed on both the north and south sides and flood waters filled the floodplain areas. Flood water was present at a depth of 3 inches to 3 ft in most low-lying areas. Soils consisted of layers of primarily sandy loam to up to 18 inches in depth with a high water column. Vegetation was heavily dominated by *Osmunda cinnamomea* (cinnamon fern) and also by *Acer rubrum* (red maple), *Cornus amomum* (silky dogwood) *Impatiens capensis* (jewelweed) *Rubus hispidus* (swamp dewberry), and *Onoclea sensibilis* (sensitive fern). The soil profile exhibited dark brown mineral soils with redoximorphic features.

The upland above Wetland A areas was characterized as an eastern white pine dominated forest. The forested area exhibited the following general structure:

- Canopy: *Pinus strobus* (eastern white pine), *Liquidambar styraciflua* (sweetgum) *Quercus rubra* (northern red oak), and *Acer rubrum* (red maple).
- Shrub: *Vaccinium corymbosum* (highbush blueberry) and *Acer rubrum* (red maple).
- Herbs/Ground Cover: *Rubus flagellaris* (northern dewberry) and *Maianthemum canadense* (Canada mayflower).

Within the Wetland B areas including Red Cove, the topography varied from approximately 1-2 ft above the surface water to 5+ ft above the surface water. The grade of the topography also varied from shallow to steep. In general, the capillary fringe of the pond extended to the top of slope creating a narrow wetland area that supported hydrophytic vegetation such as *Alnus rugosa* (specked alder), *Rhododendron canadense* (rhodora), *Cephalanthus occidentalis* (buttonbush), *Acer rubrum* (red maple), *Vaccinium corymbosum* (highbush blueberry), and *Betula populifolia* (gray birch). The soil profile, where available, exhibited grayish brown mineral soils with redoximorphic features. Wetland B is also present on the eastern side of Railroad Roundhouse up to the Grove Pond culvert (**Figure 3**), however, topography differed due to the railroad embankment.



A floodplain was present at the southeast corner of the pond which expanded the width of the wetland up to the railroad embankment. Within the floodplain, the soil profile contained mucky mineral soil and a high water table. Additional hydrophytic vegetation such as *Impatiens capensis* (jewelweed) and *Typha latifolia* (broadleaf cattail) were present. Wetland B decreased in width as it continued north along the railroad tracks where the slope becomes increasingly steep and inaccessible.

The upland above Wetland B areas was characterized as an eastern white pine and oak dominated forest. The forested area exhibited the following general structure:

- Canopy: *Pinus strobus* (eastern white pine), *Quercus rubra* (northern red oak), and *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Betula populifolia* (gray birch).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Kalmia angustifolia* (sheep laurel), *Solidago rugosa* (rough-stemmed goldenrod), and *Maianthemum canadense* (Canada mayflower).

The Wetland C area, including the area of Railroad Roundhouse, contained low-lying flood zone areas along the pond edge, with increasing slopes outside of the flood zone. The pond edges consisted of layers of primarily well-sorted sandy soils at least 18 inches in depth with a high water column. Vegetation was dominated by *Alnus rugosa* (speckled alder), *Rhododendron canadense* (rhodora), *Betula populifolia* (gray birch), and *Onoclea sensibilis* (sensitive fern). The soil profile exhibited grayish brown mineral soils with redoximorphic features.

The upland above the Wetland C area exhibited the following general structure:

- Limited canopy: *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Lonicera japonica* (Japanese honeysuckle).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Andropogon virginicus* (broomsedge bluestem), *Achillea millefolium* (common yarrow), and *Comptonia peregrina* (sweet fern).

A man-made rip-rap drainage swale leading from SHL to the Railroad Roundhouse was created to convey excess stormwater from the surrounding landfill and upland areas to the pond during storm events. The area does not typically contain water and is not considered an ephemeral or intermittent stream. Although the swale contains facultative vegetation such as *Panicum virgatum* (switchgrass), *Populus deltoides* (eastern cottonwood), and *Lonicera japonica* (Japanese honeysuckle) the lack of hydrology and hydric soil indicators confirms the swale is not a wetland. Therefore, this area was not included in the wetland determination area.

5.0 FINDINGS

Jurisdictional wetland determination is based on co-occurrence of wetland hydrology, hydric soil, and hydrophytic vegetation indicators. Using a detailed, ground-level assessment approach, co-occurring wetland indicator traits were evident along the perimeter of Plow Shop Pond within the study area.



In summary, Plow Shop Pond is a limnetic wetland (L1UBHh) with a narrow, non-persistent littoral zone (L2EM2Hh) along the shoreline. Three types of wetland areas were identified and delineated in the floodplain/capillary fringe of the pond. Wetland A, which encompasses Nonacoicus Brook, is a palustrine forested wetland (PFO1E). Wetland B, which encompasses Red Cove, is a palustrine forested/scrub-shrub wetland (PFO1Eb/PSS1Eb). Wetland C is a palustrine emergent/scrub-shrub wetland (PEM1E/PSS1Eb) located only within the Railroad Roundhouse area. The visual survey and foot traverse of the site during May 2012 and June 2013 indicated that the work zones and a majority of the staging areas (as proposed in Removal Action Work Plan for Contaminated Sediment in Plow Shop Pond) are located within wetland and wetland transition/buffer areas.



6.0 REFERENCES

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Cowardin et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. National Wetland Inventory, U.S. Fish and Wildlife Service. May 21, 2012.



FIGURES

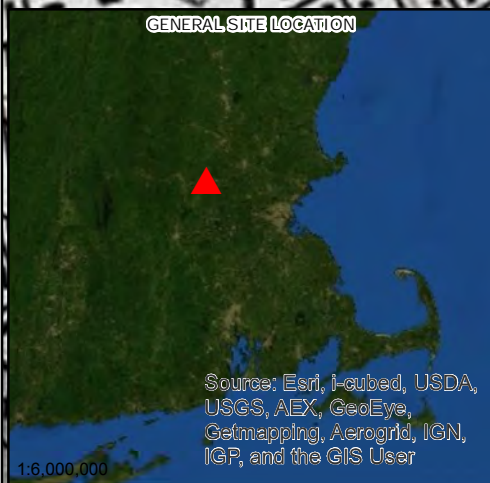


FIGURE 1 - SITE LOCUS MAP

PLOW SHOP POND - AOC 72/SA 71
FORT DEVENS, AYER, MA

Latitude: 42° 33' 20.27"N

Longitude: 71° 35' 31.21"W

0 600 1,200 2,400



Feet



SOVEREIGN CONSULTING INC.

16 Chestnut Street

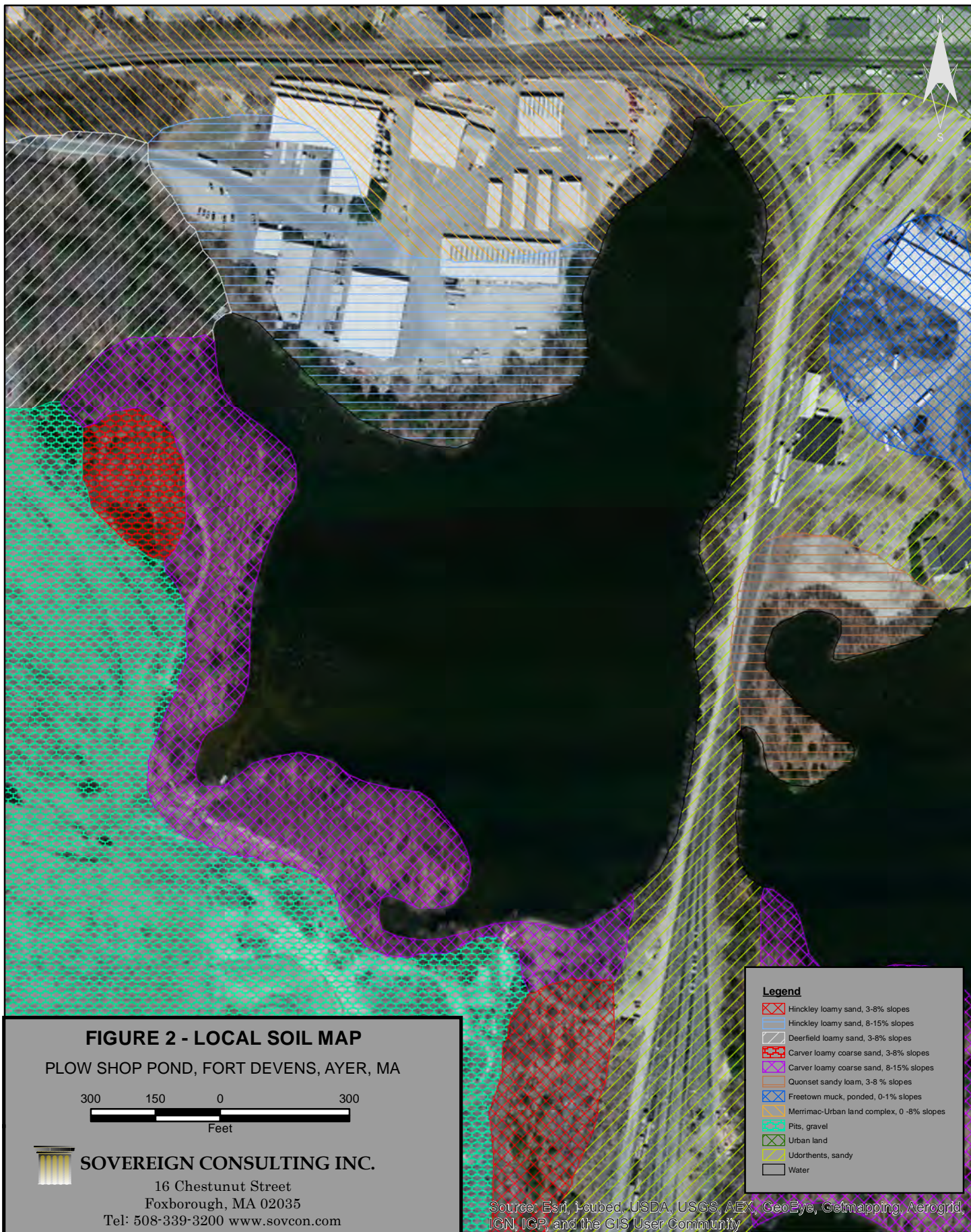
Foxborough, MA 02035

Tel: 508-339-3200, www.sovcon.com

01/26/2012 ROV

Imagery: © 2009 National Geographic Society, i-cubed

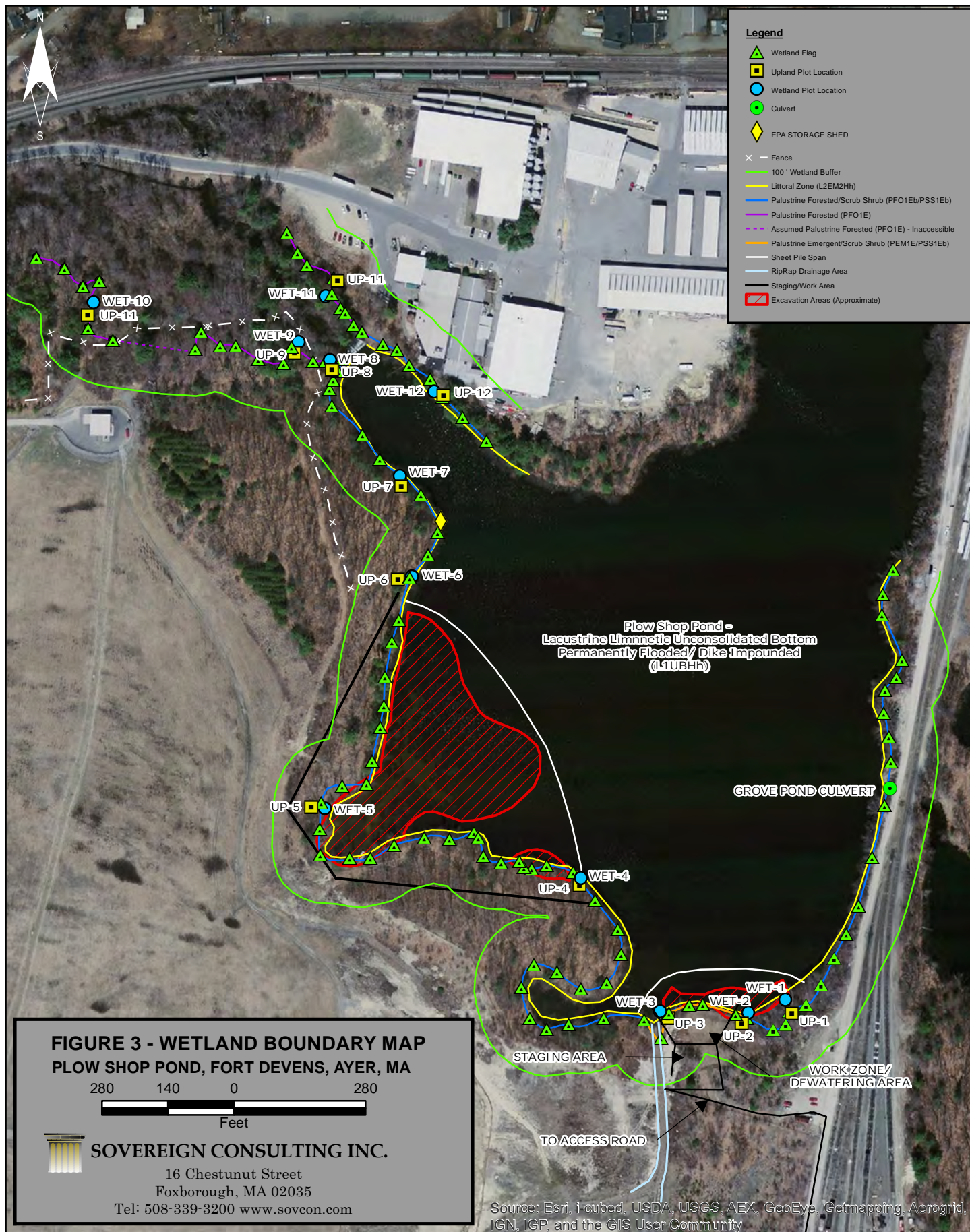
Revised 03/15/2012 ROV



NOTES:

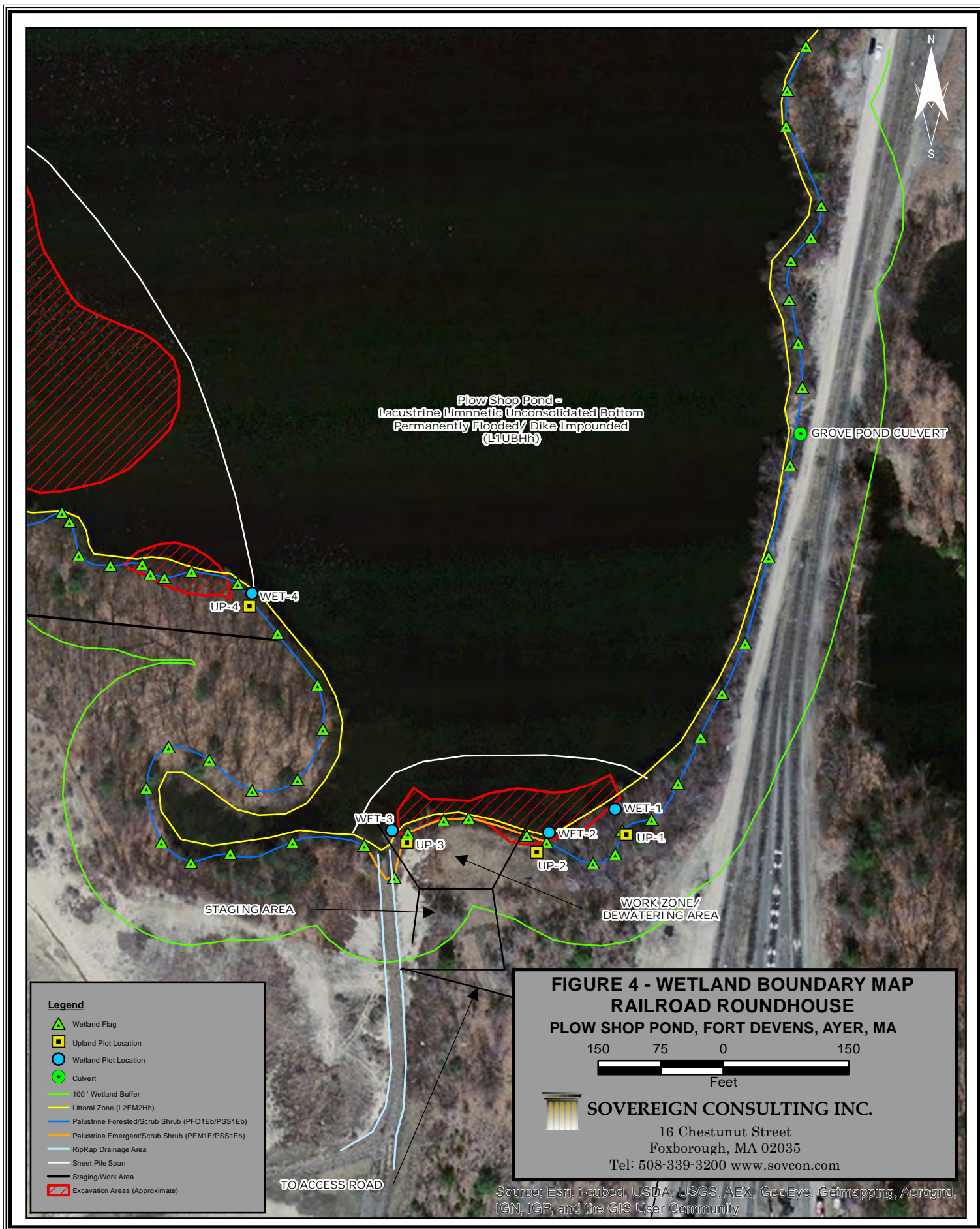
1) Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. U.S. General Soil Map (STATSGO2). Available online at <http://soildatamart.nrcs.usda.gov> . Accessed 05/21/2012

05/21/2012 ROV



NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 and JUNE 2013. HORIZONTAL ACCURACY IS GENERALLY <1'.
 2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.
 3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
 Updated 05/30/2012 ROV
 Updated 06/27/2013 ROV

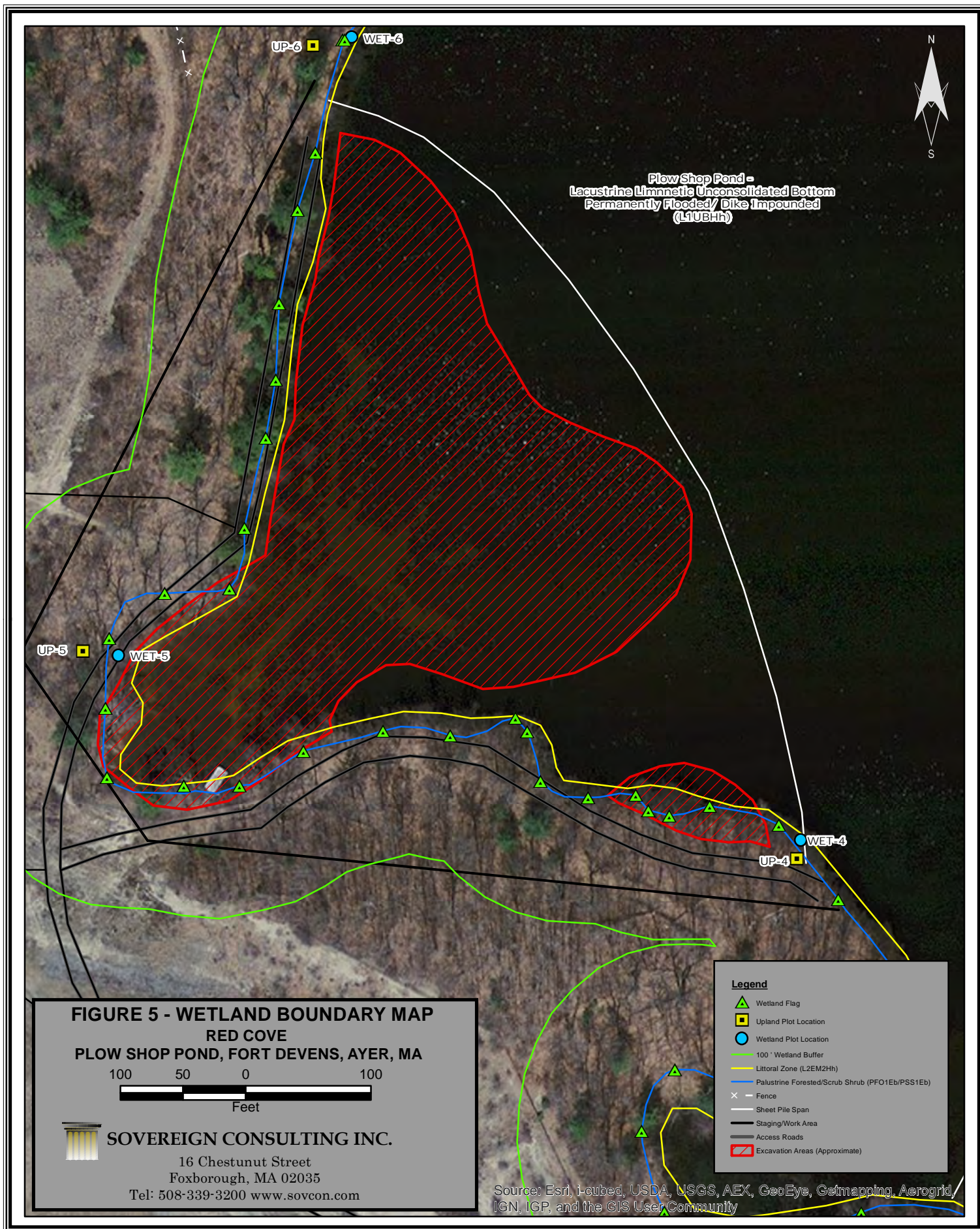


NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 AND JUNE 2013. HORIZONTAL ACCURACY IS GENERALLY <1'.

2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.

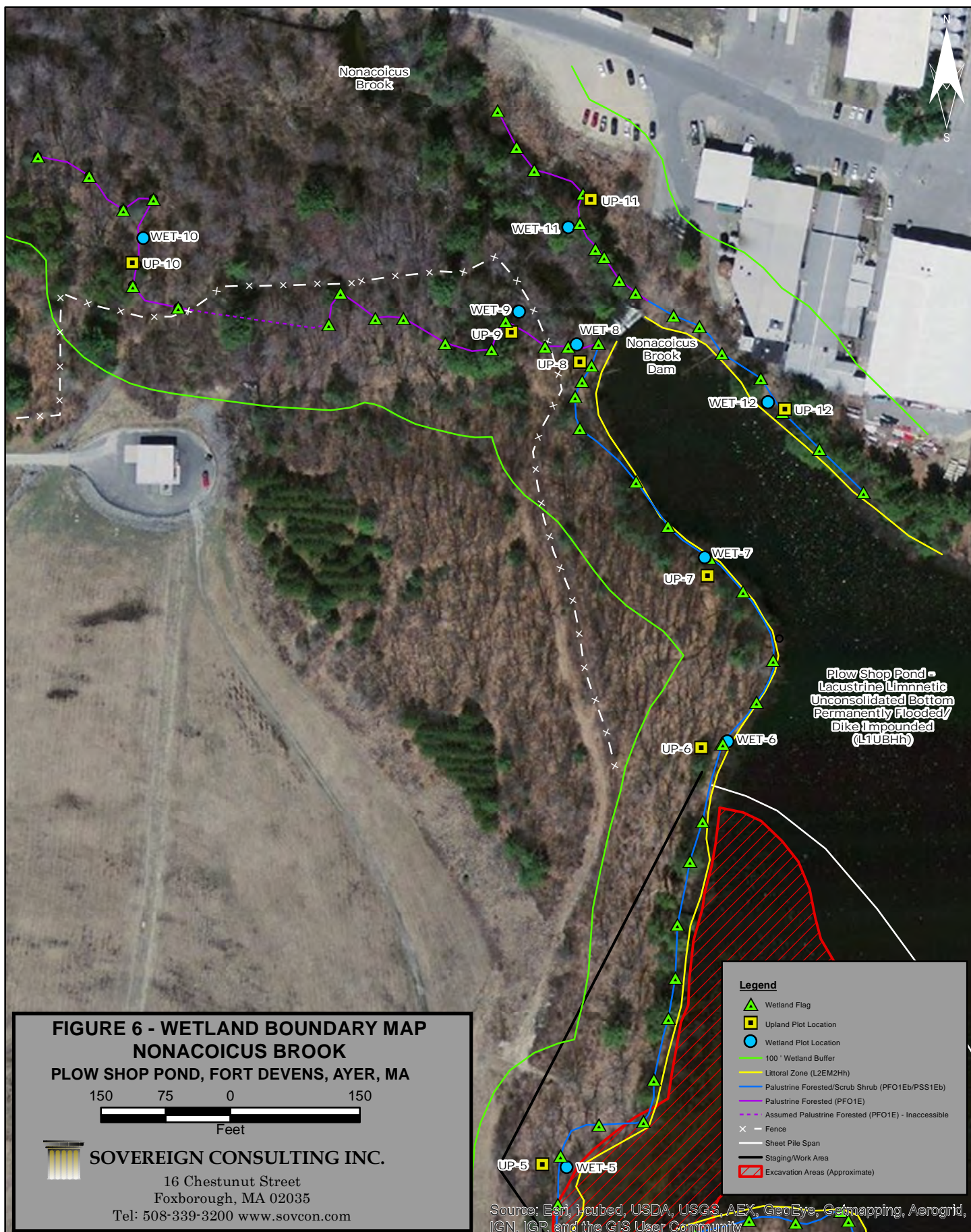
3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
Updated 05/30/2012 ROV
Updated 06/27/2013 ROV



NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 and JUNE 2013. HORIZONTAL ACCURACY IS GENERALLY <1'.
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 3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
 Updated 05/30/2012 ROV
 Updated 06/27/2013 ROV



NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 and JUNE 2013. HORIZONTAL ACCURACY IS GENERALLY <1'.

2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.

3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

06/27/2013 ROV



ATTACHMENT A

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-1
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 0-25% Lat.: 42.55363118 Long.: -71.59139 Datum: NAD83
 Soil Map Unit Name: Udorthents, sandy NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
|--|--|

Plot located on a flood plain between the pond and an artificial slope to the east created by the railroad. Plot approx 10 ft from standing water (approximately 12" deep) at pond edge. Wetland area decreases in width as it continues north along the railroad tracks where the slope becomes increasingly steep and inaccessible.

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
|--|--|

| | |
|---|--|
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes <u>X</u> No <u>X</u> Depth (inches): <u>6"</u> Saturation present? Yes <u>X</u> No <u>X</u> Depth (inches): <u>1"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Plot located on a flat flood plain, elevated topography to the east causes drainage to the floodplain area. Plot located approx 10 ft from pond edge.

VEGETATION - Use scientific names of plants **Sampling Point:** WET-1

Sampling Point: WET-1

| Tree Stratum | | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
|--------------|------------------------|-------------------|------------------|------------------|-----------------|
| 1 | <i>Acer rubrum</i> | | 65 | Y | FAC |
| 2 | <i>Ulmus americana</i> | | 30 | Y | FACW |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| | | | 95 | = Total Cover | |

| Sapling/Shurb Stratum | | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
|-----------------------|-------------------------------|-------------------|------------------|------------------|-----------------|
| 1 | <i>Alnus rugosa</i> | | 10 | Y | FACW |
| 2 | <i>Vaccinium corymbosum</i> | | 10 | Y | FACW |
| 3 | <i>Rhododendron canadense</i> | | 10 | Y | FACW |
| 4 | <i>Cornus stolonifera</i> | | 5 | N | FACW |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| | | | 35 | = Total Cover | |

| Herb Stratum | | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
|--------------|------------------------------|-------------------|------------------|------------------|-----------------|
| 1 | <i>Impatiens capensis</i> | | 25 | Y | FACW |
| 2 | <i>Typha latifolia</i> | | 20 | Y | OBL |
| 3 | <i>Symplocarpus foetidus</i> | | 15 | Y | OBL |
| 4 | <i>Osmunda cinnamomea</i> | | 15 | Y | FACW |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| | | | 75 | = Total Cover | |

| Woody Vine Stratum | | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus |
|--------------------|--|---------------|------------------|------------------|-----------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| | | | 0 | = Total Cover | |

50/20 Thresholds

| | | |
|-----------------------|-----|-----|
| Tree Stratum | 20% | 50% |
| Sapling/Shrub Stratum | 19 | 48 |
| Herb Stratum | 7 | 18 |
| Woody Vine Stratum | 15 | 38 |
| | 0 | 0 |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across all Strata: 9 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

| | | | |
|--------------------------|---------|-------|---------|
| OBL species | 35 | x 1 = | 35 |
| FACW species | 105 | x 2 = | 210 |
| FAC species | 65 | x 3 = | 195 |
| FACU species | 0 | x 4 = | 0 |
| UPL species | 0 | x 5 = | 0 |
| Column totals | 205 (A) | | 440 (B) |
| Prevalence Index = B/A = | | | 2.15 |

Hydrophytic Vegetation Indicators:

☐ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☒ Prevalence index is $\leq 3.0^*$

Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

☐ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

| | |
|--|--|
| Remarks: (Include photo numbers here or on a separate sheet) | |
|--|--|

Sphagnum spp present on soil and downed branches.

SOIL

Sampling Point: WET-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/23/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-1
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 0-25% Lat.: 42.55355038 Long.: -71.5913406 Datum: NAD83
 Soil Map Unit Name: Udorthents, sandy NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology X significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
|--|--|

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a reclaimed area that was previously disturbed during the construction of the railroad tracks to the east. Gravel stone/fill material present on the slope. Slope leads gradually down to the flood plain zone adjacent to the pond edge. Slope becomes increasingly steep and inaccessible to the north along the railway.

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
|--|--|

| | |
|---|--|
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a slope leading from the flood plain below to the railroad tracks above. Slope artificially created by the railroad tracks. Slope provides drainage from tracks above to flood plain below.

VEGETATION - Use scientific names of plants
Sampling Point: UP-1

| Tree Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
|-----------------------|------------------------------------|--|--|--|-------------------|---------------|------|---------------------|---------------------|--------------------|
| 1 | <i>Quercus bicolor</i> | | | | 50 | Y | FACW | | | |
| 2 | <i>Acer rubrum</i> | | | | 50 | Y | FAC | | | |
| 3 | <i>Pinus strobus</i> | | | | 10 | N | FACU | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 110 | = Total Cover | | | | |
| Sapling/Shurb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Betula populifolia</i> | | | | 5 | Y | FAC | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 5 | = Total Cover | | | | |
| Herb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Solidago rugosa</i> | | | | 50 | Y | FACU | | | |
| 2 | <i>Maianthemum canadense</i> | | | | 20 | Y | FACU | | | |
| 3 | <i>Rhus typhina</i> | | | | 5 | N | FACU | | | |
| 4 | <i>Ranunculus septentrionalis</i> | | | | 2 | N | FAC | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| | | | | | 77 | = Total Cover | | | | |
| Woody Vine Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Toxicodendron radicans</i> | | | | 15 | Y | FAC | | | |
| 2 | <i>Parthenocissus quinquefolia</i> | | | | 15 | Y | FACU | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| | | | | | 30 | = Total Cover | | | | |

50/20 Thresholds

| | | |
|-----------------------|-----|-----|
| | 20% | 50% |
| Tree Stratum | 22 | 55 |
| Sapling/Shrub Stratum | 1 | 3 |
| Herb Stratum | 15 | 39 |
| Woody Vine Stratum | 6 | 15 |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 57.14% (A/B)

Prevalence Index Worksheet

Total % Cover of:

| | | | |
|--------------------------|-----|-------|------|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 50 | x 2 = | 100 |
| FAC species | 72 | x 3 = | 216 |
| FACU species | 100 | x 4 = | 400 |
| UPL species | 0 | x 5 = | 0 |
| Column totals | 222 | (A) | 716 |
| Prevalence Index = B/A = | | | 3.23 |

Hydrophytic Vegetation Indicators:

☒ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☐ Prevalence index is ≤3.0*

☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

☐ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL

Sampling Point: UP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
 Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
 Loamy Mucky Mineral (F1) (**LRR K, L**)
 Loamy Gleyed Matrix (F2)
 Depleted Matrix (F3)
 Redox Dark Surface (F6)
 Depleted Dark Surface (F7)
 Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? N

Remarks:

Soil boring completed on slope created by the railroad. Gravel stone/fill material present on the slope. Slope becomes increasingly steep and filled with debris and fill material as it continues north along the railroad tracks.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-2
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55355595 Long.: -71.59168321 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to steep bank leading up to railroad tracks. Plot within a forested edge. Fill material (bricks/concrete) present in soils due to past site disturbance. At pond's edge, water is approximately 12" deep. | |

HYDROLOGY

| | |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>~1-2"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located at base of steep bank, within 5' of pond edge. Water-stained leaves indicate flood zone. | |

| 50/20 Thresholds | | | | |
|-----------------------|----------------------------------|------------------|------------------|-----------------|
| Tree Stratum | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Acer rubrum</i> | 50 | Y | FAC |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | 50 = Total Cover | | |
| Sapling/Shrub Stratum | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Rhododendron canadense</i> | 2 | Y | FACW |
| 2 | <i>Cephalanthus occidentalis</i> | 2 | Y | OBL |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | 4 = Total Cover | | |
| Herb Stratum | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Onoclea sensibilis</i> | 5 | Y | FACW |
| 2 | <i>Symplocarpus foetidus</i> | 5 | Y | OBL |
| 3 | <i>Impatiens capensis</i> | 5 | Y | FACW |
| 4 | <i>Ludwigia palustris</i> | 5 | Y | OBL |
| 5 | <i>Typha latifolia</i> | 2 | N | OBL |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| | | 22 = Total Cover | | |
| Woody Vine Stratum | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| | | 0 = Total Cover | | |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

| | | | |
|---------------|---------------|-------|----------------|
| OBL species | <u>14</u> | x 1 = | <u>14</u> |
| FACW species | <u>12</u> | x 2 = | <u>24</u> |
| FAC species | <u>50</u> | x 3 = | <u>150</u> |
| FACU species | <u>0</u> | x 4 = | <u>0</u> |
| UPL species | <u>0</u> | x 5 = | <u>0</u> |
| Column totals | <u>76</u> (A) | | <u>188</u> (B) |

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

 Rapid test for hydrophytic vegetation

X Dominance test is >50%

X Prevalence index is ≤3.0*

Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

 Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present?

Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on rocks and downed branches.

SOIL

Sampling Point: WET-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | |
|---|--|
| ___ Histisol (A1) | ___ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| ___ Histic Epipedon (A2) | ___ Thin Dark Surface (S9) |
| ___ Black Histic (A3) | ___ (LRR R, MLRA 149B) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Mucky Mineral (F1) |
| ___ Stratified Layers (A5) | ___ (LRR K, L) |
| ___ Depleted Below Dark Surface (A11) | ___ Loamy Gleyed Matrix (F2) |
| ___ Thick Dark Surface (A12) | ___ Depleted Matrix (F3) |
| ___ Sandy Mucky Mineral (S1) | ___ Redox Dark Surface (F6) |
| ___ Sandy Gleyed Matrix (S4) | ___ Depleted Dark Surface (F7) |
| ___ Sandy Redox (S5) | ___ Redox Depressions (F8) |
| ___ Stripped Matrix (S6) | |
| ___ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? N

| |
|----------|
| Remarks: |
|----------|

Soil boring data unavailable due to fill material (bricks/concrete) at ~2" bgs in multiple locations within flood zone next to pond. Assumed disturbed soil due to past site operations and presence of adjacent railroad bed. Although soil boring could not be completed, the presence of wetland hydrology and hydrophytic vegetation indicates that the plot is within a wetland.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-2
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55349217 Long.: -71.59173818 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located upslope from pond, on edge between forest and flat, previously disturbed area. Sandy fill material present in soils due to past site disturbance. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located upslope from pond (approx 10' higher in elevation) on edge of dry, grassy area previously disturbed during past site activities. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-2

| Tree Stratum | | | | | 50/20 Thresholds | | |
|----------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Acer rubrum</i> | 10 | Y | FAC | Tree Stratum | 2 | 5 | |
| 2 | | | | Sapling/Shrub Stratum | 10 | 25 | |
| 3 | | | | Herb Stratum | 10 | 25 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across all Strata: <u>5</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>20.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 10 = Total Cover | | | Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>12</u> x 3 = <u>36</u> FACU species <u>97</u> x 4 = <u>388</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>109</u> (A) <u>424</u> (B) Prevalence Index = B/A = <u>3.89</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) <small>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</small> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Lonicera japonica</i> | 25 | Y | FACU | | | | |
| 2 <i>Vaccinium angustifolium</i> | 25 | Y | FACU | | | | |
| 3 | | | | | | | |
| 4 | | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | Hydrophytic vegetation present? <u>N</u> | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | Remarks: (Include photo numbers here or on a separate sheet) | | | |
| 15 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Solidago spp. >FAC</i> | 20 | Y | FACU | | | | |
| 2 <i>Comptonia peregrina</i> | 20 | Y | FACU | | | | |
| 3 <i>Andropogon virginicus</i> | 5 | N | FACU | | | | |
| 4 <i>Achillea millefolium</i> | 2 | N | FACU | Hydrophytic vegetation present? <u>N</u> | | | |
| 5 <i>Betula populifolia</i> | 2 | N | FAC | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | Hydrophytic vegetation present? <u>N</u> | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | Hydrophytic vegetation present? <u>N</u> | | | |
| 15 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | Hydrophytic vegetation present? <u>N</u> | | | |
| 5 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 0 = Total Cover | | | | | Hydrophytic vegetation present? <u>N</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

SOIL

Sampling Point: UP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|------------------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-4 | 10YR 3/2 | | | | | | | Dry, f-m brown sand, fill material |
| 4-12 | 5Y 5/4 | | | | | | | Dry, f-m brown sand, fill material |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histisol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR R, MLRA 149B)
- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
☐ Loamy Mucky Mineral (F1) (LRR K, L)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Thin Dark Surface (S9) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of coarse loamy sands.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-3
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55356289 Long.: -71.5923806 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to slope leading up to cleared, previously disturbed area. Plot within a forested edge. At pond's edge, water is approximately 12" deep. | |

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes <u>X</u> No _____ Depth (inches): <u>8"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>4"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located on a flat flood zone area at base of slope, within 5' of pond edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-3

| Tree Stratum | | | | | 50/20 Thresholds | | |
|---|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Betula populifolia</i> | 50 | Y | FAC | Tree Stratum | 10 | 25 | |
| 2 | | | | Sapling/Shrub Stratum | 4 | 11 | |
| 3 | | | | Herb Stratum | 4 | 11 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 50 = Total Cover | | | Prevalence Index Worksheet Total % Cover of: OBL species <u>4</u> x 1 = <u>4</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>94</u> (A) <u>244</u> (B) Prevalence Index = B/A = <u>2.60</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| 1 <i>Alnus rugosa</i> | 20 | Y | FACW | | | | |
| 2 <i>Cephalanthus occidentalis</i> | 2 | N | OBL | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 22 = Total Cover | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | | | |
| 1 <i>Onoclea sensibilis</i> | 10 | Y | FACW | | | | |
| 2 <i>Solidago spp. (assumed ulignosa)</i> | 10 | Y | FAC | | | | |
| 3 <i>Typha latifolia</i> | 2 | N | OBL | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 22 = Total Cover | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | 0 = Total Cover | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Sphagnum spp present on rocks and downed branches.

SOIL**Sampling Point:** WET-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|----|----------------|----|-------|-------|---------|---------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-2 | 10YR 2/1 | | | | | | | Organic material |
| 2-6 | 10YR 4/2 | | 10YR 5/6 | 10 | C | | | Moist, gray-brown, m sand |
| 6-12 | 10YR 5/1 | 50 | | | | | | Moist, gray, m sand |
| 6-12 | 10YR 6/1 | 50 | | | | | | Moist, gray, m sand |
| | | | | | | | | |
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| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? ☒ Y

Remarks:

Depleted matrix, redox concentrations to 2-6" bgs. Standing water in boring hole at 8" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-3
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55352253 Long.: -71.59231691 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located upslope from pond edge and rip-rap drainage swale on edge of sandy path created by past site disturbance activities. Plot located in a previously cleared area. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located along slope leading up from drainage swale to flat, cleared area above. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-3

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|------------------|------------------|-----------------|---|------------------|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Acer rubrum</i> | 10 | Y | FAC | Tree Stratum | 2 | 5 | |
| 2 | | | | Sapling/Shrub Stratum | 4 | 10 | |
| 3 | | | | Herb Stratum | 14 | 35 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet | | | |
| 6 | | | | Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) | | | |
| 7 | | | | Total Number of Dominant Species Across all Strata: <u>3</u> (B) | | | |
| 8 | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (A/B) | | | |
| 9 | | | | Prevalence Index Worksheet | | | |
| 10 | 10 | = Total Cover | | Total % Cover of: | | | |
| | | | | OBL species <u>0</u> x 1 = <u>0</u> | | | |
| | | | | FACW species <u>20</u> x 2 = <u>40</u> | | | |
| | | | | FAC species <u>10</u> x 3 = <u>30</u> | | | |
| | | | | FACU species <u>70</u> x 4 = <u>280</u> | | | |
| | | | | UPL species <u>0</u> x 5 = <u>0</u> | | | |
| | | | | Column totals <u>100</u> (A) <u>350</u> (B) | | | |
| | | | | Prevalence Index = B/A = <u>3.50</u> | | | |
| | | | | Hydrophytic Vegetation Indicators: | | | |
| | | | | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation | | | |
| | | | | <input checked="" type="checkbox"/> Dominance test is >50% | | | |
| | | | | <input type="checkbox"/> Prevalence index is ≤3.0* | | | |
| | | | | <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | | | |
| | | | | <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) | | | |
| | | | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | | |
| | | | | Definitions of Vegetation Strata: | | | |
| | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | | | |
| | | | | Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. | | | |
| | | | | Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. | | | |
| | | | | Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| Remarks: (Include photo numbers here or on a separate sheet) | | | | | | | |
| Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland. | | | | | | | |

SOIL

Sampling Point: UP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- _____ Histisol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Dark Surface (S7) (**LRR R, MLRA 149B**)

Indicators for Problematic Hydric Soils:

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of course loamy sands.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-4
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
|--|--|

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing lake water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
|--|--|

| | |
|---|--|
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants
Sampling Point: WET-4

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|---|---------------------|---------------------|--------------------|--|---------|-------------|
| | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% |
| 1 | | | | | Tree Stratum | 0 | 0 |
| 2 | | | | | Sapling/Shrub Stratum | 10 | 25 |
| 3 | | | | | Herb Stratum | 8 | 20 |
| 4 | | | | | Woody Vine Stratum | 0 | 0 |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | | 0 | = Total Cover | | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | |
| 1 | <i>Rhododendron canadense</i> | 30 | Y | FACW | Number of Dominant Species that are OBL, FACW, or FAC: | 5 | (A) |
| 2 | <i>Betula populifolia</i> | 10 | Y | FAC | Total Number of Dominant Species Across all Strata: | 5 | (B) |
| 3 | <i>Acer rubrum</i> | 10 | Y | FAC | Percent of Dominant Species that are OBL, FACW, or FAC: | 100.00% | (A/B) |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | | 50 | = Total Cover | | | | |
| Herb Stratum | | | | | Prevalence Index Worksheet | | |
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | |
| 1 | <i>Vaccinium corymbosum</i> | 30 | Y | FACW | Total % Cover of: | | |
| 2 | <i>Betula populifolia</i> | 10 | Y | FAC | OBL species | 0 | x 1 = 0 |
| 3 | | | | | FACW species | 60 | x 2 = 120 |
| 4 | | | | | FAC species | 30 | x 3 = 90 |
| 5 | | | | | FACU species | 0 | x 4 = 0 |
| 6 | | | | | UPL species | 0 | x 5 = 0 |
| 7 | | | | | Column totals | 90 | (A) 210 (B) |
| 8 | | | | | Prevalence Index = B/A = | 2.33 | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | | 40 | = Total Cover | | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | |
| 1 | | | | | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation | | |
| 2 | | | | | <input checked="" type="checkbox"/> Dominance test is >50% | | |
| 3 | | | | | <input checked="" type="checkbox"/> Prevalence index is ≤3.0* | | |
| 4 | | | | | Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | | |
| 5 | | | | | Problematic hydrophytic vegetation* (explain) | | |
| | | | | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | |
| | | | | | Hydrophytic vegetation present? | | |
| | | | | | Y | | |
| Remarks: (Include photo numbers here or on a separate sheet) Sphagnum spp present on soil along bank of pond. | | | | | | | |

SOIL

Sampling Point: WET-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | |
|---|--|
| ___ Histisol (A1) | ___ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| ___ Histic Epipedon (A2) | ___ Thin Dark Surface (S9) |
| ___ Black Histic (A3) | ___ (LRR R, MLRA 149B) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Mucky Mineral (F1) |
| ___ Stratified Layers (A5) | ___ (LRR K, L) |
| ___ Depleted Below Dark Surface (A11) | ___ Loamy Gleyed Matrix (F2) |
| ___ Thick Dark Surface (A12) | ___ Depleted Matrix (F3) |
| ___ Sandy Mucky Mineral (S1) | ___ Redox Dark Surface (F6) |
| ___ Sandy Gleyed Matrix (S4) | ___ Depleted Dark Surface (F7) |
| ___ Sandy Redox (S5) | ___ Redox Depressions (F8) |
| ___ Stripped Matrix (S6) | |
| ___ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ Polyvalue Below Surface (S8) (**LRR K, L**)
☐ Thin Dark Surface (S9) (**LRR K, L**)
☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-4
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. | |

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located upslope from the pond's edge on a higher plateau. Topography slopes gently down to pond edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-4

| Tree Stratum | | | | | 50/20 Thresholds | | |
|----------------------------------|------------------|------------------|-----------------|---|---|-------------|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 50 | Y | FACU | Tree Stratum | 16 | 40 | |
| 2 <i>Quercus palustris</i> | 20 | Y | FACW | Sapling/Shrub Stratum | 0 | 0 | |
| 3 <i>Acer rubrum</i> | 10 | N | FAC | Herb Stratum | 12 | 31 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | 80 | = Total Cover | | | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | Number of Dominant Species that are OBL, FACW, or FAC: | 1 | (A) | |
| 2 | | | | Total Number of Dominant Species Across all Strata: | 3 | (B) | |
| 3 | | | | Percent of Dominant Species that are OBL, FACW, or FAC: | 33.33% | (A/B) | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | 0 | = Total Cover | | | | | |
| Herb Stratum | | | | | Prevalence Index Worksheet | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Vaccinium angustifolium</i> | 50 | Y | FACU | Total % Cover of: | | | |
| 2 <i>Quercus rubra</i> | 5 | N | FACU | OBL species | 0 | x 1 = 0 | |
| 3 <i>Betula populifolia</i> | 5 | N | FAC | FACW species | 20 | x 2 = 40 | |
| 4 <i>Kalmia angustifolia</i> | 2 | N | FAC | FAC species | 17 | x 3 = 51 | |
| 5 | | | | FACU species | 105 | x 4 = 420 | |
| 6 | | | | UPL species | 0 | x 5 = 0 | |
| 7 | | | | Column totals | 142 | (A) 511 (B) | |
| 8 | | | | Prevalence Index = B/A = | | 3.60 | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | 62 | = Total Cover | | | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | ___ Rapid test for hydrophytic vegetation | | | |
| 2 | | | | ___ Dominance test is >50% | | | |
| 3 | | | | ___ Prevalence index is ≤3.0* | | | |
| 4 | | | | ___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | | | |
| 5 | | | | ___ Problematic hydrophytic vegetation* (explain) | | | |
| | 0 | = Total Cover | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | <p>Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines - All woody vines greater than 3.28 ft in height.</p> | | |
| | | | | | Hydrophytic vegetation present? | | |
| | | | | | ___ N | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL
Sampling Point: UP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|----|----------------|---|-------|-------|---------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-3 | 10YR 2/1 | | | | | | | Organic material |
| 3-12 | 10YR 5/6 | 50 | | | | | | Dry, m brown sand, tr gravel |
| 3-12 | 10YR 5/4 | 50 | | | | | | Dry, m brown sand, tr gravel |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____

Depth (inches): _____

Hydric soil present? N
Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-5
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave
 Slope (%): 8-15% Lat.: 42.55474221 Long.: -71.59502604 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot at Red Cove. Plot located on a floodplain within a forested scrub-shrub wetland, approx. 10 ft from standing water at pond edge. At pond's edge, water is approximately 12" deep. | |

HYDROLOGY

| | |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u> </u> No <u>X</u> Depth (inches): _____ Water table present? Yes <u>X</u> No <u> </u> Depth (inches): <u>12"</u> Saturation present? Yes <u>X</u> No <u> </u> Depth (inches): <u>2-3"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Higher slopes all around drain to floodplain area next to pond's edge. | |

| 50/20 Thresholds | | | | |
|------------------------------------|-------------------|------------------|------------------|-----------------|
| Tree Stratum | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 <i>Acer rubrum</i> | | 35 | Y | FAC |
| 2 <i>Quercus rubra</i> | | 35 | Y | FACU |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | 70 = Total Cover | | |
| Sapling/Shrub Stratum | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 <i>Cephalanthus occidentalis</i> | | 20 | Y | OBL |
| 2 <i>Viburnum recognitum</i> | | 5 | Y | FACW |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | 25 = Total Cover | | |
| Herb Stratum | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 <i>Thelypteris palustris</i> | | 40 | Y | FACW |
| 2 <i>Quercus bicolor</i> | | 2 | N | FACW |
| 3 <i>Quercus rubra</i> | | 2 | N | FACU |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| | | 44 = Total Cover | | |
| Woody Vine Stratum | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| | | 0 = Total Cover | | |

50/20 Thresholds

| | | |
|-----------------------|-----|-----|
| | 20% | 50% |
| Tree Stratum | 14 | 35 |
| Sapling/Shrub Stratum | 5 | 13 |
| Herb Stratum | 9 | 22 |
| Woody Vine Stratum | 0 | 0 |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 80.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

| | | | |
|---------------|----------------|-------|----------------|
| OBL species | <u>20</u> | x 1 = | <u>20</u> |
| FACW species | <u>47</u> | x 2 = | <u>94</u> |
| FAC species | <u>35</u> | x 3 = | <u>105</u> |
| FACU species | <u>37</u> | x 4 = | <u>148</u> |
| UPL species | <u>0</u> | x 5 = | <u>0</u> |
| Column totals | <u>139</u> (A) | | <u>367</u> (B) |

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

 Rapid test for hydrophytic vegetation

X Dominance test is >50%

X Prevalence index is ≤3.0*

 Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

 Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL
Sampling Point: WET-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|----|-------|-------|---------|--------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-2 | 10YR 2/1 | | | | | | | Organic material |
| 2-5 | 10YR 5/3 | | 10YR 3/6 | 20 | C | | | Moist, m gray sand |
| 5-12 | 10YR 5/1 | | 10YR 3/6 | 20 | C | | | Moist, m gray sand |
| | | | | | | | | |
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*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Depleted matrix, redox concentrations to 5-12" bgs. Soil saturated at 2-3" bgs, standing water in the soil boring at 12" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-5
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55475194 Long.: -71.59513224 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water table present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> | |
| Remarks: Plot located upslope from the pond's edge. Topography slopes gently down to floodplain below. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-5

| Tree Stratum | | | | | 50/20 Thresholds | | |
|------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 35 | Y | FACU | Tree Stratum | 15 | 38 | |
| 2 <i>Pinus strobus</i> | 20 | Y | FACU | Sapling/Shrub Stratum | 2 | 5 | |
| 3 <i>Acer rubrum</i> | 20 | Y | FAC | Herb Stratum | 8 | 20 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across all Strata: <u>5</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>60.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 75 | = Total Cover | | Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>55</u> x 4 = <u>220</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>125</u> (A) <u>420</u> (B) Prevalence Index = B/A = <u>3.36</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) <small>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</small> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Alnus rugosa</i> | 10 | Y | FACW | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 10 | = Total Cover | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Kalmia angustifolia</i> | 40 | Y | FAC | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 40 | = Total Cover | | Hydrophytic vegetation present? <u>Y</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | 0 | = Total Cover | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL

Sampling Point: UP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | |
|---|--|
| _____ Histisol (A1) | _____ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| _____ Histic Epipedon (A2) | _____ Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| _____ Black Histic (A3) | _____ Loamy Mucky Mineral (F1) (LRR K, L) |
| _____ Hydrogen Sulfide (A4) | _____ Loamy Gleyed Matrix (F2) |
| _____ Stratified Layers (A5) | _____ Depleted Matrix (F3) |
| _____ Depleted Below Dark Surface (A11) | _____ Redox Dark Surface (F6) |
| _____ Thick Dark Surface (A12) | _____ Depleted Dark Surface (F7) |
| _____ Sandy Mucky Mineral (S1) | _____ Redox Depressions (F8) |
| _____ Sandy Gleyed Matrix (S4) | |
| _____ Sandy Redox (S5) | |
| _____ Stripped Matrix (S6) | |
| _____ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

_____ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 _____ Coast Prairie Redox (A16) (**LRR K, L, R**)
 _____ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 _____ Dark Surface (S7) (**LRR K, L**)
 _____ Polyvalue Below Surface (S8) (**LRR K, L**)
 _____ Thin Dark Surface (S9) (**LRR K, L**)
 _____ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 _____ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 _____ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 _____ Red Parent Material (TF2)
 _____ Very Shallow Dark Surface (TF12)
 _____ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches):

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-6
 Investigator(s): L.Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55609147 Long.: -71.59436444 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
|--|--|

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing pond water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

| | |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
|---|--|

| | |
|---|--|
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants
Sampling Point: WET-6

| Tree Stratum | | | | | 50/20 Thresholds | | |
|---------------------------------|------------------|------------------|-----------------|--|---|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 30 | Y | FACU | Tree Stratum | 6 | 15 | |
| 2 | | | | Sapling/Shrub Stratum | 0 | 0 | |
| 3 | | | | Herb Stratum | 6 | 16 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across all Strata: <u>3</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 30 = Total Cover | | | Prevalence Index Worksheet Total % Cover of: OBL species <u>2</u> x 1 = <u>2</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>62</u> (A) <u>182</u> (B) Prevalence Index = B/A = <u>2.94</u> | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Sapling/Shrub Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 15 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Herb Stratum | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Rhododendron canadense</i> | 20 | Y | FACW | | | | |
| 2 <i>Vaccinium corymbosum</i> | 10 | Y | FACW | | | | |
| 3 <i>Peltandra virginica</i> | 2 | N | OBL | | | | |
| 4 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 15 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Woody Vine Stratum | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | Hydrophytic vegetation present? <u>Y</u> | | | |
| 5 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 0 = Total Cover | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 32 = Total Cover | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 0 = Total Cover | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Sphagnum spp present on soil along bank of pond.

SOIL

Sampling Point: WET-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | |
|---|--|
| ___ Histisol (A1) | ___ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| ___ Histic Epipedon (A2) | ___ Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| ___ Black Histic (A3) | ___ Loamy Mucky Mineral (F1) (LRR K, L) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Gleyed Matrix (F2) |
| ___ Stratified Layers (A5) | ___ Depleted Matrix (F3) |
| ___ Depleted Below Dark Surface (A11) | ___ Redox Dark Surface (F6) |
| ___ Thick Dark Surface (A12) | ___ Depleted Dark Surface (F7) |
| ___ Sandy Mucky Mineral (S1) | ___ Redox Depressions (F8) |
| ___ Sandy Gleyed Matrix (S4) | |
| ___ Sandy Redox (S5) | |
| ___ Stripped Matrix (S6) | |
| ___ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ Polyvalue Below Surface (S8) (**LRR K, L**)
☐ Thin Dark Surface (S9) (**LRR K, L**)
☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-6
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.5560784 Long.: -71.59445222 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. Slope leads from higher ground down to water's edge of the pond. | |

HYDROLOGY

| | |
|---|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 48%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located upslope from pond on a steep slope. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-6

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|------------------|------------------|-----------------|---|---|---------|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Quercus rubra</i> | 60 | Y | FACU | Tree Stratum | 20 | 50 | |
| 2 <i>Pinus strobus</i> | 40 | Y | FACU | Sapling/Shrub Stratum | 3 | 8 | |
| 3 | | | | Herb Stratum | 2 | 5 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | 100 | = Total Cover | | | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Hamamelis virginiana</i> | 15 | Y | FACU | Number of Dominant Species that are OBL, FACW, or FAC: | 0 | (A) | |
| 2 | | | | Total Number of Dominant Species Across all Strata: | 4 | (B) | |
| 3 | | | | Percent of Dominant Species that are OBL, FACW, or FAC: | 0.00% | (A/B) | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | 15 | = Total Cover | | | | | |
| Herb Stratum | | | | | Prevalence Index Worksheet | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Vaccinium angustifolium</i> | 10 | Y | FACU | Total % Cover of: | | | |
| 2 | | | | OBL species | 0 x 1 = | 0 | |
| 3 | | | | FACW species | 0 x 2 = | 0 | |
| 4 | | | | FAC species | 0 x 3 = | 0 | |
| 5 | | | | FACU species | 125 x 4 = | 500 | |
| 6 | | | | UPL species | 0 x 5 = | 0 | |
| 7 | | | | Column totals | 125 (A) | 500 (B) | |
| 8 | | | | Prevalence Index = B/A = | 4.00 | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | 10 | = Total Cover | | | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | <input type="checkbox"/> Rapid test for hydrophytic vegetation | | | |
| 2 | | | | <input type="checkbox"/> Dominance test is >50% | | | |
| 3 | | | | <input type="checkbox"/> Prevalence index is ≤3.0* | | | |
| 4 | | | | <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | | | |
| 5 | | | | <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) | | | |
| | 0 | = Total Cover | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | <p>Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines - All woody vines greater than 3.28 ft in height.</p> | | |
| Remarks: (Include photo numbers here or on a separate sheet) | | | | | Hydrophytic vegetation present? | | |
| | | | | | <div style="border-bottom: 1px solid black; width: 100px; display: inline-block;"></div> | | |

SOIL

Sampling Point: UP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- _____ Histisol (A1)
- _____ Histic Epipedon (A2)
- _____ Black Histic (A3)
- _____ Hydrogen Sulfide (A4)
- _____ Stratified Layers (A5)
- _____ Depleted Below Dark Surface (A11)
- _____ Thick Dark Surface (A12)
- _____ Sandy Mucky Mineral (S1)
- _____ Sandy Gleyed Matrix (S4)
- _____ Sandy Redox (S5)
- _____ Stripped Matrix (S6)
- _____ Dark Surface (S7) (LRR R, MLRA 149B)

Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
 Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
 Loamy Mucky Mineral (F1) (**LRR K, L**)
 Loamy Gleyed Matrix (F2)
 Depleted Matrix (F3)
 Redox Dark Surface (F6)
 Depleted Dark Surface (F7)
 Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ Polyvalue Below Surface (S8) (**LRR K, L**)
☐ Thin Dark Surface (S9) (**LRR K, L**)
☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-7
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55670 Long.: -71.59442 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, the water level in Plow Shop Pond is 2-3 ft above normal. The typical littoral zone
 is currently underwater.

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located in a forested scub-shrub wetland approximately 1' from standing water at pond edge. At pond's edge, water is approximately 24" deep. | |

HYDROLOGY

| | |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>24"</u> Water table present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>6"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: Plot located approximately 1' from pond edge at the base of a steep slope. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-7

| Tree Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
|-----------------------|-------------------------------|--|--|--|-------------------|--|----|---------------------|---------------------|--------------------|
| 1 | <i>Acer rubrum</i> | | | | | | 30 | Y | FAC | |
| 2 | <i>Quercus alba</i> | | | | | | 25 | Y | FACU | |
| 3 | <i>Quercus palustris</i> | | | | | | 15 | N | FACW | |
| 4 | <i>Pinus rigida</i> | | | | | | 10 | N | FACU | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | | | 80 | = Total Cover | | |
| Sapling/Shrub Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Alnus rugosa</i> | | | | | | 20 | Y | FACW | |
| 2 | <i>Spiraea alba</i> | | | | | | 10 | Y | FACW | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | | | 30 | = Total Cover | | |
| Herb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Vaccinium corymbosum</i> | | | | | | 20 | Y | FAC | |
| 2 | <i>Thelypteris palustris</i> | | | | | | 10 | Y | OBL | |
| 3 | <i>Rhododendron canadense</i> | | | | | | 5 | N | FACW | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| | | | | | | | 35 | = Total Cover | | |
| Woody Vine Stratum | | | | | Plot Size () | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| | | | | | | | 0 | = Total Cover | | |

50/20 Thresholds

| | | |
|-----------------------|-----|-----|
| | 20% | 50% |
| Tree Stratum | 16 | 40 |
| Sapling/Shrub Stratum | 6 | 15 |
| Herb Stratum | 7 | 18 |
| Woody Vine Stratum | 0 | 0 |

Dominance Test Worksheet
 Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)
 Total Number of Dominant Species Across all Strata: 6 (B)
 Percent of Dominant Species that are OBL, FACW, or FAC: 83.33% (A/B)

Prevalence Index Worksheet
 Total % Cover of:
 OBL species 10 x 1 = 10
 FACW species 50 x 2 = 100
 FAC species 50 x 3 = 150
 FACU species 35 x 4 = 140
 UPL species 0 x 5 = 0
 Column totals 145 (A) 400 (B)
 Prevalence Index = B/A = 2.76

Hydrophytic Vegetation Indicators:
☒ Rapid test for hydrophytic vegetation
☒ Dominance test is >50%
☒ Prevalence index is ≤3.0*
 Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
 Problematic hydrophytic vegetation* (explain)
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:
Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL**Sampling Point:** WET-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| | | | | | | | | |
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| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-7
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55664 Long.: -71.59442 Datum: NAD83
 Soil Map Unit Name: Carver loamy coarse sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, flooding is present in some upland areas, however upland locations on steep slopes,
 such as Plot UP-7, exhibit normal circumstances.

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located upslope of the pond's edge on a steep slope. | |

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water table present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: Plot located on a steep slope leading up from the pond's edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-7

| Tree Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
|-----------------------|--------------------------------|--|--|--|-------------------|---------------|------|---------------------|---------------------|--------------------|
| 1 | <i>Quercus rubra</i> | | | | 35 | Y | FACW | | | |
| 2 | <i>Pinus rigida</i> | | | | 10 | Y | FACU | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 45 | = Total Cover | | | | |
| Sapling/Shurb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 0 | = Total Cover | | | | |
| Herb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Vaccinium angustifolium</i> | | | | 40 | Y | FACU | | | |
| 2 | <i>Quercus alba</i> | | | | 5 | N | FACU | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| | | | | | 45 | = Total Cover | | | | |
| Woody Vine Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| | | | | | 0 | = Total Cover | | | | |

50/20 Thresholds

| | | |
|-----------------------|-----|-----|
| | 20% | 50% |
| Tree Stratum | 9 | 23 |
| Sapling/Shrub Stratum | 0 | 0 |
| Herb Stratum | 9 | 23 |
| Woody Vine Stratum | 0 | 0 |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

| | | | |
|--------------------------|----|-------|------|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 35 | x 2 = | 70 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 55 | x 4 = | 220 |
| UPL species | 0 | x 5 = | 0 |
| Column totals | 90 | (A) | 290 |
| Prevalence Index = B/A = | | | 3.22 |

Hydrophytic Vegetation Indicators:

☐ Rapid test for hydrophytic vegetation

☐ Dominance test is >50%

☐ Prevalence index is ≤3.0*

☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

☐ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: UP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

| | |
|---|--|
| ___ Histisol (A1) | ___ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| ___ Histic Epipedon (A2) | ___ Thin Dark Surface (S9) |
| ___ Black Histic (A3) | ___ (LRR R, MLRA 149B) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Mucky Mineral (F1) |
| ___ Stratified Layers (A5) | ___ (LRR K, L) |
| ___ Depleted Below Dark Surface (A11) | ___ Loamy Gleyed Matrix (F2) |
| ___ Thick Dark Surface (A12) | ___ Depleted Matrix (F3) |
| ___ Sandy Mucky Mineral (S1) | ___ Redox Dark Surface (F6) |
| ___ Sandy Gleyed Matrix (S4) | ___ Depleted Dark Surface (F7) |
| ___ Sandy Redox (S5) | ___ Redox Depressions (F8) |
| ___ Stripped Matrix (S6) | |
| ___ Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
 ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
 ___ Dark Surface (S7) (**LRR K, L**)
 ___ Polyvalue Below Surface (S8) (**LRR K, L**)
 ___ Thin Dark Surface (S9) (**LRR K, L**)
 ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
 ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
 ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
 ___ Red Parent Material (TF2)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-8
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 3-8% Lat.: 42.55736 Long.: -71.59499 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, the water level in Plow Shop Pond is 2-3 ft above normal and the low-lying areas
 surrounding the dam are currently underwater or saturated to the soil surface.

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located in a forested wetland approximately 20 ft south of the dam in an area that appears to be periodically flooded during heavy rains. A slight slope leads from the upland areas southeast of the dam down to the low-lying floodzone area southwest of the dam. Currently, plot location is flooded and soil is saturated. | |

HYDROLOGY

| | |
|---|---|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input checked="" type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes <u>X</u> No _____ Depth (inches): <u>12"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>1"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: Plot located in a periodically flooded area on the south side of the dam. Due to heavy rains, plot area currently exhibits saturation to soil surface, however, this condition is likely atypical as the microtopography of the plot location is slightly sloped and not concave. Surrounding areas beside dam are heavily flooded due to high water. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-8

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|-------------------------------|------------------|------------------|-----------------|---|------------------|----------------|
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% |
| 1 | <i>Ulmus americana</i> | 35 | Y | FACW | Tree Stratum | 9 | 23 |
| 2 | <i>Quercus palustris</i> | 10 | Y | FACW | Sapling/Shrub Stratum | 5 | 13 |
| 3 | | | | | Herb Stratum | 17 | 43 |
| 4 | | | | | Woody Vine Stratum | 1 | 3 |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | 45 | = Total Cover | | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | Number of Dominant Species that are OBL, FACW, or FAC: <u>6</u> (A) | | |
| 1 | <i>Cornus amomum</i> | 25 | Y | FACW | Total Number of Dominant Species Across all Strata: <u>6</u> (B) | | |
| 2 | | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B) | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | 25 | = Total Cover | | | | |
| Herb Stratum | | | | | Prevalence Index Worksheet | | |
| | Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | Total % Cover of: | | |
| 1 | <i>Impatiens capensis</i> | 40 | Y | FACW | OBL species | <u>10</u> x 1 = | <u>10</u> |
| 2 | <i>Onoclea sensibilis</i> | 20 | Y | FACW | FACW species | <u>140</u> x 2 = | <u>280</u> |
| 3 | <i>Vaccinium corymbosum</i> | 10 | N | FACW | FAC species | <u>10</u> x 3 = | <u>30</u> |
| 4 | <i>Thelypteris palustris</i> | 10 | N | OBL | FACU species | <u>0</u> x 4 = | <u>0</u> |
| 5 | <i>Solidago rugosa</i> | 5 | N | FAC | UPL species | <u>0</u> x 5 = | <u>0</u> |
| 6 | | | | | Column totals | <u>160</u> (A) | <u>320</u> (B) |
| 7 | | | | | Prevalence Index = B/A = <u>2.00</u> | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | 85 | = Total Cover | | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| | Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| 1 | <i>Toxicodendron radicans</i> | 5 | Y | FAC | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | 5 | = Total Cover | | | | |
| Definitions of Vegetation Strata: | | | | | | | |
| Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | | | | | |
| Hydrophytic vegetation present? <u>Y</u> | | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Sphagnum spp. present on tree roots and downed woody debris within plot.

SOIL**Sampling Point:** WET-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|----------------------|------------|----------------|----|-------|-------|---------|--|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-4 | 10YR 2/1 | | | | | | | m-sandy loam, tr. clay, dk brown |
| 4-6 | 10YR 2/1 10YR 4/3 | 60% 40% | | | | | | m-sandy loam, tr. clay, dk brown and lt brown |
| 6-12 | 10YR 2/1 | | 2.5YR 4/3 | 5% | C | PL | | m-sandy loam, tr. clay, dk brown with reddish pore linings |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy loam with redox concentrations along pore linings. Saturation observed to soil surface with water in the hole at 12" bgs, however, current water table conditions are likely higher than typical conditions due to flooding observed in area.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-8
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex
 Slope (%): 3-8% Lat.: 42.55732 Long.: -71.59497 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located on an upland peninsula that abuts the dam. Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located on a small topographically raised peninsula adjacent to the south side of the dam. Runoff drains from this area toward lower areas to the west. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-8

| Tree Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
|-----------------------|-----------------------------------|--|--|--|-------------------|---------------|------|---------------------|---------------------|--------------------|
| 1 | <i>Ulmus americana</i> | | | | 35 | Y | FACW | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 35 | = Total Cover | | | | |
| Sapling/Shrub Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | | | | | 0 | = Total Cover | | | | |
| Herb Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Osmunda cinnamomea</i> | | | | 50 | Y | FACW | | | |
| 2 | <i>Vaccinium corymbosum</i> | | | | 25 | Y | FACW | | | |
| 3 | <i>Dichanthelium clandestinum</i> | | | | 5 | N | FAC | | | |
| 4 | <i>Quercus alba</i> | | | | 2 | N | FACU | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| | | | | | 82 | = Total Cover | | | | |
| Woody Vine Stratum | | | | | Plot Size (10') | | | Absolute % Cover | Dominant Species | Indicator Staus |
| 1 | <i>Toxicodendron radicans</i> | | | | 5 | Y | FAC | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| | | | | | 5 | = Total Cover | | | | |

50/20 Thresholds

| | | |
|-----------------------|-----|-----|
| | 20% | 50% |
| Tree Stratum | 7 | 18 |
| Sapling/Shrub Stratum | 0 | 0 |
| Herb Stratum | 16 | 41 |
| Woody Vine Stratum | 1 | 3 |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

| | | | |
|--------------------------|-----|-------|------|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 110 | x 2 = | 220 |
| FAC species | 10 | x 3 = | 30 |
| FACU species | 2 | x 4 = | 8 |
| UPL species | 0 | x 5 = | 0 |
| Column totals | 122 | (A) | 258 |
| Prevalence Index = B/A = | | | 2.11 |

Hydrophytic Vegetation Indicators:

☒ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☒ Prevalence index is ≤3.0*

Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area.

SOIL
Sampling Point: UP-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|--------------------------------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-6 | 10YR 2/2 | | | | | | | m-sandy loam, dk brown, dry |
| 6-12 | 10YR 3/3 | | | | | | | m-sand, tr silt, lt brown, dry |
| | | | | | | | | |
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| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-9
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none
 Slope (%): 3-8% Lat.: 42.55752 Long.: -71.59518 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, the low-lying areas surrounding the dam are currently underwater or saturated to the soil surface.

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located in a forested wetland approximately 20 ft south from Nonacoicus Brook in a floodplain area. Currently, plot location is flooded and standing water is present. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>3-6"</u> Water table present? Yes <u>X</u> No _____ Depth (inches): <u>0"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: Plot located in a floodplain on the south side of Nonacoicus Brook. Due to heavy rains, plot area currently exhibits standing water. Surface water appears to be present periodically, due to the presence of water-stained leaves in microtopographic lows within the floodplain. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-9

| Tree Stratum | | | | | 50/20 Thresholds | | |
|-----------------------|---------------------------|---|---------------------|---------------------|--|---|--------|
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Acer rubrum</i> | | 70 | Y | FAC | Tree Stratum | 20% 14 |
| 2 | | | | | | Sapling/Shrub Stratum | 50% 35 |
| 3 | | | | | | Herb Stratum | 22 56 |
| 4 | | | | | | Woody Vine Stratum | 0 0 |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | | | 70 | = Total Cover | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Cornus amomum</i> | | 5 | Y | FACW | Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A) | |
| 2 | | | | | | Total Number of Dominant Species Across all Strata: <u>4</u> (B) | |
| 3 | | | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B) | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | | | 5 | = Total Cover | | | |
| Herb Stratum | | | | | Prevalence Index Worksheet | | |
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Onoclea sensibilis</i> | | 60 | Y | FACW | Total % Cover of: | |
| 2 | <i>Osmunda cinnamomea</i> | | 40 | Y | FACW | OBL species <u>2</u> x 1 = <u>2</u> | |
| 3 | <i>Rubus hispidus</i> | | 10 | N | FACW | FACW species <u>115</u> x 2 = <u>230</u> | |
| 4 | <i>Iris versicolor</i> | | 2 | N | OBL | FAC species <u>70</u> x 3 = <u>210</u> | |
| 5 | | | | | | FACU species <u>0</u> x 4 = <u>0</u> | |
| 6 | | | | | | UPL species <u>0</u> x 5 = <u>0</u> | |
| 7 | | | | | | Column totals <u>187</u> (A) <u>442</u> (B) | |
| 8 | | | | | | Prevalence Index = B/A = <u>2.36</u> | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | | | 112 | = Total Cover | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| Plot Size (| |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | | | | | | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation | |
| 2 | | | | | | <input checked="" type="checkbox"/> Dominance test is >50% | |
| 3 | | | | | | <input checked="" type="checkbox"/> Prevalence index is ≤3.0* | |
| 4 | | | | | | Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | |
| 5 | | | | | | Problematic hydrophytic vegetation* (explain) | |
| | | | 0 | = Total Cover | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | |
| | | | | | Hydrophytic vegetation present? <u>Y</u> | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL**Sampling Point:** WET-9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------------|-----------|-------|-------|---------|--|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-4 | 10YR 2/1 | | | | | | | f-m-sand, some silt, tr. clay, dk brown |
| 4-12 | 10YR 2/1 | | 10YR 7/6 10YR 4/6 | 10% 2% | C | PL | | f-m-sand, some silt, tr. clay, dk brown w/yellow & copper conc |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:**Indicators for Problematic Hydric Soils:**

- | | | |
|---|--|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stripped Matrix (S6) | | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | | <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy soil with redox concentrations along pore linings. Standing water currently 3-6" deep, however soil is not likely flooded for long periods throughout the year - water table conditions are likely higher than typical conditions due to flooding observed in area.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-9
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 3-8% Lat.: 42.55756 Long.: -71.59537 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, flooding is present in some upland areas.

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located next to old roadbed leading to the gate that accesses the dam. Although hydrophytic vegetation present, the absence of hydric soils and hydrology indicate an upland area. | |

HYDROLOGY

| | |
|---|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 48%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No _____ Depth (inches): _____ Water table present? Yes _____ No _____ Depth (inches): _____ Saturation present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located adjacent to an overgrown road bed on a shallow slope leading down to the floodplain area of Nonacoicus Brook. Runoff drains from this area toward lower areas to the west. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-9

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|------------------------------|---|---------------------|---------------------|---|---|--------|
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Pinus strobus</i> | | 75 | Y | FACU | Tree Stratum | 20% 15 |
| 2 | | | | | | Sapling/Shrub Stratum | 50% 38 |
| 3 | | | | | | Herb Stratum | 10 25 |
| 4 | | | | | | Woody Vine Stratum | 0 0 |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | 75 | = Total Cover | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Acer rubrum</i> | | 10 | Y | FAC | Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A) | |
| 2 | <i>Vaccinium corymbosum</i> | | 10 | Y | FACW | Total Number of Dominant Species Across all Strata: <u>5</u> (B) | |
| 3 | | | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>80.00%</u> (A/B) | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | 20 | = Total Cover | | | |
| Herb Stratum | | | | | Prevalence Index Worksheet | | |
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Osmunda cinnamomea</i> | | 30 | Y | FACW | Total % Cover of: | |
| 2 | <i>Maianthemum canadense</i> | | 20 | Y | FAC | OBL species <u>0</u> x 1 = <u>0</u> | |
| 3 | | | | | | FACW species <u>40</u> x 2 = <u>80</u> | |
| 4 | | | | | | FAC species <u>30</u> x 3 = <u>90</u> | |
| 5 | | | | | | FACU species <u>75</u> x 4 = <u>300</u> | |
| 6 | | | | | | UPL species <u>0</u> x 5 = <u>0</u> | |
| 7 | | | | | | Column totals <u>145</u> (A) <u>470</u> (B) | |
| 8 | | | | | | Prevalence Index = B/A = <u>3.24</u> | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | 50 | = Total Cover | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | | | | | | <input type="checkbox"/> Rapid test for hydrophytic vegetation | |
| 2 | | | | | | <input checked="" type="checkbox"/> Dominance test is >50% | |
| 3 | | | | | | Prevalence index is ≤3.0* | |
| 4 | | | | | | Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | |
| 5 | | | | | | Problematic hydrophytic vegetation* (explain) | |
| | | | | | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | | |
| | | | | | Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. | | |
| | | | | | Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. | | |
| | | | | | Woody vines - All woody vines greater than 3.28 ft in height. | | |
| | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Remarks: (Include photo numbers here or on a separate sheet) Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area. | | | | | | | |

SOIL**Sampling Point:** UP-9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|--|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-2 | | | | | | | | organic matter |
| 2-10 | 10YR 2/1 | | | | | | | f-m-sand, some silt, dk brown, dry |
| 10-12 | 10YR 3/2 | | | | | | | f-m-sand, some silt, brown, slightly moist |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-10
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none
 Slope (%): 3-8% Lat.: 42.55777 Long.: -71.59702 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, the low-lying areas surrounding Nonacoicus Brook are currently underwater
 or saturated to the soil surface.

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located in a forested wetland south from Nonacoicus Brook in a floodplain area. Due to heavy rains, adjacent areas are currently flooded with standing water present. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes <u>X</u> No _____ Depth (inches): <u>8"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>6"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: Plot located in a floodplain on the south side of Nonacoicus Brook. Water table at plot location could be atypically elevated due to nearby flooding. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-10

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|------------------|------------------|-----------------|--|---|-------|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Liquidambar styraciflua</i> | 70 | Y | FAC | | Tree Stratum | 14 35 | |
| 2 | | | | | Sapling/Shrub Stratum | 4 10 | |
| 3 | | | | | Herb Stratum | 28 70 | |
| 4 | | | | | Woody Vine Stratum | 0 0 | |
| 5 | | | | | Dominance Test Worksheet | | |
| 6 | | | | | Number of Dominant Species that are OBL, FACW, or FAC: <u>5</u> (A) | | |
| 7 | | | | | Total Number of Dominant Species Across all Strata: <u>5</u> (B) | | |
| 8 | | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B) | | |
| 9 | | | | | Prevalence Index Worksheet | | |
| 10 | 70 = Total Cover | | | | Total % Cover of: | | |
| | | | | | OBL species <u>5</u> x 1 = <u>5</u> | | |
| | | | | | FACW species <u>145</u> x 2 = <u>290</u> | | |
| | | | | | FAC species <u>80</u> x 3 = <u>240</u> | | |
| | | | | | FACU species <u>0</u> x 4 = <u>0</u> | | |
| | | | | | UPL species <u>0</u> x 5 = <u>0</u> | | |
| | | | | | Column totals <u>230</u> (A) <u>535</u> (B) | | |
| | | | | | Prevalence Index = B/A = <u>2.33</u> | | |
| | | | | | Hydrophytic Vegetation Indicators: | | |
| | | | | | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation | | |
| | | | | | <input checked="" type="checkbox"/> Dominance test is >50% | | |
| | | | | | <input checked="" type="checkbox"/> Prevalence index is ≤3.0* | | |
| | | | | | Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | | |
| | | | | | Problematic hydrophytic vegetation* (explain) | | |
| | | | | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | | |
| | | | | | Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. | | |
| | | | | | Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. | | |
| | | | | | Woody vines - All woody vines greater than 3.28 ft in height. | | |
| | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Remarks: (Include photo numbers here or on a separate sheet) | | | | | | | |

SOIL
Sampling Point: WET-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|-----|-------|-------|---------|---|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-6 | 10YR 2/1 | | | | | | | f-m-sand, some silt, tr. clay, dk brown |
| 6-12 | 10YR 2/1 | | 2.5YR 3/4 | 10% | C | PL | | f-m-sand, some silt, tr. clay, dk brown w/reddish masses and pore lining concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy soil with redox concentrations in masses and along pore linings.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-10
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 3-8% Lat.: 42.55766 Long.: -71.59702 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, flooding is present in some upland areas.

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located on a shallow slope upland from the floodplain area of Nonacoicus Brook. Although hydrophytic vegetation present, the absence of hydric soils and hydrology indicate an upland area. | |

HYDROLOGY

| | |
|--|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u> </u> No <u> </u> Depth (inches): _____ Water table present? Yes <u> </u> No <u> </u> Depth (inches): _____ Saturation present? Yes <u> </u> No <u> </u> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located on a shallow slope upland from the floodplain area. Runoff drains from this area toward lower areas to the northwest. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-10

| Tree Stratum | | | | | 50/20 Thresholds | | |
|---|------------------|------------------|-----------------|---|--|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Liquidambar styraciflua</i> | 60 | Y | FAC | Tree Stratum | 26 | 65 | |
| 2 <i>Acer rubrum</i> | 50 | Y | FAC | Sapling/Shrub Stratum | 9 | 23 | |
| 3 <i>Pinus rigida</i> | 20 | N | FACU | Herb Stratum | 5 | 13 | |
| 4 | | | | Woody Vine Stratum | 0 | 0 | |
| 5 | | | | Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across all Strata: <u>8</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>75.00%</u> (A/B) | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 130 | = Total Cover | | | | | |
| Sapling/Shrub Stratum | | | | | Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>135</u> x 3 = <u>405</u> FACU species <u>35</u> x 4 = <u>140</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>200</u> (A) <u>605</u> (B) Prevalence Index = B/A = <u>3.03</u> | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Vaccinium corymbosum</i> | 25 | Y | FACW | | | | |
| 2 <i>Liquidambar styraciflua</i> | 20 | Y | FAC | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 45 | = Total Cover | | | | | |
| Herb Stratum | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Rubus flagellaris</i> | 10 | Y | FACU | | | | |
| 2 <i>Liquidambar styraciflua</i> | 5 | Y | FAC | | | | |
| 3 <i>Viburnum recognitum</i> | 5 | Y | FACW | | | | |
| 4 <i>Rosa multiflora</i> | 5 | Y | FACU | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 25 | = Total Cover | | | | | |
| Woody Vine Stratum | | | | | Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | 0 | = Total Cover | | | | | |
| Hydrophytic vegetation present? <u>Y</u> | | | | | | | |
| | | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

 Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area.

SOIL**Sampling Point:** UP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|-----|-------|-------|---------|--|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-12 | 10YR 2/2 | | | | | | | f-sand, some silt, dk brown, dry |
| 12-14 | 10YR 2/2 | | 10Y/R 5/6 | 15% | C | PL | | f-sand, some silt, brown, slightly moist |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

Soil exhibits some redox features but at a depth too deep to be considered a hydric soil indicator.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-11
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none
 Slope (%): 3-8% Lat.: 42.55774 Long.: -71.59501 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, the low-lying areas surrounding Nonacoicus Brook are currently underwater
 or saturated to the soil surface.

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located in a forested wetland on the north side of Nonacoicus Brook, north of the dam, in a floodplain area that is also downslope from a dirt road to the north leading to the dam. Due to heavy rains, adjacent areas are currently flooded with standing water present. | |

HYDROLOGY

| | |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input checked="" type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>6"-1'</u> Water table present? Yes <u>X</u> No _____ Depth (inches): <u>10"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>10"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: Standing water to a depth of 6"-1' is present within 5' of the center of the plot, likely due to localized flooding. However, large maple trees within plot exhibited buttressed roots, indicating that periodic flooding of Nonacoicus Brook may occur in this area. The water table within the soil boring noted at 10" bgs. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-11

| Tree Stratum | | | | | 50/20 Thresholds | | |
|-------------------------------------|------------------|------------------|-----------------|---|---|-------------|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Acer rubrum</i> | 80 | Y | FAC | Tree Stratum | 20 | 50 | |
| 2 <i>Pinus strobus</i> | 20 | Y | FACU | Sapling/Shrub Stratum | 0 | 0 | |
| 3 | | | | Herb Stratum | 14 | 35 | |
| 4 | | | | Woody Vine Stratum | 1 | 3 | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | 100 | = Total Cover | | | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | Number of Dominant Species that are OBL, FACW, or FAC: | 3 | (A) | |
| 2 | | | | Total Number of Dominant Species Across all Strata: | 5 | (B) | |
| 3 | | | | Percent of Dominant Species that are OBL, FACW, or FAC: | 60.00% | (A/B) | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | 0 | = Total Cover | | | | | |
| Herb Stratum | | | | | Total % Cover of: | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Osmunda regalis</i> | 40 | Y | OBL | OBL species | 40 | x 1 = 40 | |
| 2 <i>Quercus rubra</i> | 15 | Y | FACU | FACW species | 10 | x 2 = 20 | |
| 3 <i>Cornus amomum</i> | 10 | N | FACW | FAC species | 90 | x 3 = 270 | |
| 4 <i>Dichanthelium clandestinum</i> | 5 | N | FAC | FACU species | 35 | x 4 = 140 | |
| 5 | | | | UPL species | 0 | x 5 = 0 | |
| 6 | | | | Column totals | 175 | (A) 470 (B) | |
| 7 | | | | Prevalence Index = B/A = | 2.69 | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | 70 | = Total Cover | | | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| Plot Size () | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Toxicodendron radicans</i> | 5 | Y | FAC | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation | | | |
| 2 | | | | <input checked="" type="checkbox"/> Dominance test is >50% | | | |
| 3 | | | | <input checked="" type="checkbox"/> Prevalence index is ≤3.0* | | | |
| 4 | | | | Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | | | |
| 5 | | | | Problematic hydrophytic vegetation* (explain) | | | |
| | 5 | = Total Cover | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | | |
| | | | | | Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. | | |
| | | | | | Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. | | |
| | | | | | Woody vines - All woody vines greater than 3.28 ft in height. | | |
| | | | | | Hydrophytic vegetation present? <u>Y</u> | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL**Sampling Point:** WET-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------------|------------|-------|-------|---------|--|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-1 | 10YR 2/1 | | | | | | | organic material |
| 1-3 | 10YR 2/1 | | | | | | | f-sandy loam, dk brown, slightly moist |
| 3-12 | 10YR 2/1 | | 10YR 5/8 10YR 5/4 | 20% 10% | C | PL | | f-sandy loam, dk brown, moist, with pore lining concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histisol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☒ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR R, MLRA 149B)
- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
☐ Thin Dark Surface (S9)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Thin Dark Surface (S9) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy loam with redox concentrations along pore linings. Saturated at 10" bgs.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-11
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 3-8% Lat.: 42.55780 Long.: -71.59489 Datum: NAD83
 Soil Map Unit Name: Deerfield loamy sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, flooding is present in some upland areas.

SUMMARY OF FINDINGS

| | |
|--|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located on a moderate slope upland from the floodplain area of Nonacoicus Brook. At the top of the slope is a dirt road leading down to the dam. | |

HYDROLOGY

| | |
|---|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 48%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water table present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located on a moderate slope upland from a floodplain area. Runoff drains from this area toward lower areas to the southwest. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-11

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|------------------|------------------|-----------------|---|------------------|-----|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Pinus strobus</i> | 70 | Y | FACU | Tree Stratum | 20 | 50 | |
| 2 <i>Quercus rubra</i> | 30 | Y | FACU | Sapling/Shrub Stratum | 0 | 0 | |
| 3 | | | | Herb Stratum | 15 | 38 | |
| 4 | | | | | 2 | 5 | |
| 5 | | | | Dominance Test Worksheet | | | |
| 6 | | | | Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) | | | |
| 7 | | | | Total Number of Dominant Species Across all Strata: <u>4</u> (B) | | | |
| 8 | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>25.00%</u> (A/B) | | | |
| 9 | | | | | | | |
| 10 | 100 | = Total Cover | | | | | |
| Sapling/Shrub Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | 0 | = Total Cover | | | | | |
| Herb Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Polygonum cuspidatum</i> | 60 | Y | FACU | | | | |
| 2 <i>Pinus strobus</i> | 5 | N | FACU | | | | |
| 3 <i>Maianthemum canadense</i> | 5 | N | FAC | | | | |
| 4 <i>Quercus rubra</i> | 5 | N | FACU | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | 75 | = Total Cover | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Toxicodendron radicans</i> | 10 | Y | FAC | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| | 10 | = Total Cover | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet) | | | | | | | |
| Heavily dominated by <i>Polygonum cuspidatum</i> (Japanese knotweed) due to the proximity to the dirt road leading to the dam. Road is overgrown with this vegetation. | | | | | | | |

Hydrophytic vegetation present? N

SOIL**Sampling Point:** UP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|--|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-1 | | | | | | | | organic material |
| 1-13 | 10YR 2/1 | | | | | | | f-sand, some silt, few m- gravel, dk brown, dry |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-12
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55719 Long.: -71.59416 Datum: NAD83
 Soil Map Unit Name: Hinckley loamy sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, the water level in Plow Shop Pond is 2-3 ft above normal. The typical littoral zone
 is currently underwater.

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Wetland hydrology present? <u>Y</u> | Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located in a forested scrub-shrub wetland approx 1 ft from standing water at the pond's edge on the north side of the Plow Shop Pond. At water's edge, pond is approximately 6" deep. | |

HYDROLOGY

| | |
|---|---|
| Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8) | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input checked="" type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>6"-1'</u> Water table present? Yes <u>X</u> No _____ Depth (inches): <u>10"</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>10"</u> (includes capillary fringe) | Wetland hydrology present? <u>Y</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Plot located at the base of a shallow slope, approximately 1' from pond's edge. | |

VEGETATION - Use scientific names of plants
Sampling Point: WET-12

| Tree Stratum | | | | | 50/20 Thresholds | | |
|--|-----------------------------|---|---------------------|---------------------|---|--|--------|
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Juglans nigra</i> | | 50 | Y | FACU | Tree Stratum | 20% 10 |
| 2 | | | | | | Sapling/Shrub Stratum | 50% 25 |
| 3 | | | | | | Herb Stratum | 3 7 |
| 4 | | | | | | Woody Vine Stratum | 0 0 |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | 50 | = Total Cover | | | |
| Sapling/Shrub Stratum | | | | | Dominance Test Worksheet | | |
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Cornus sericea</i> | | 30 | Y | FACW | Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A) | |
| 2 | <i>Viburnum recognitum</i> | | 20 | Y | FACW | Total Number of Dominant Species Across all Strata: <u>5</u> (B) | |
| 3 | <i>Juglans nigra</i> | | 20 | Y | FACU | Percent of Dominant Species that are OBL, FACW, or FAC: <u>60.00%</u> (A/B) | |
| 4 | <i>Vaccinium corymbosum</i> | | 15 | N | FACW | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | 85 | = Total Cover | | | |
| Herb Stratum | | | | | Total % Cover of: | | |
| Plot Size (| 10' |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | <i>Iris versicolor</i> | | 10 | Y | OBL | OBL species <u>14</u> x 1 = <u>14</u> | |
| 2 | <i>Carex lurida</i> | | 2 | N | OBL | FACW species <u>65</u> x 2 = <u>130</u> | |
| 3 | <i>Peltandra virginica</i> | | 2 | N | OBL | FAC species <u>0</u> x 3 = <u>0</u> | |
| 4 | | | | | | FACU species <u>70</u> x 4 = <u>280</u> | |
| 5 | | | | | | UPL species <u>0</u> x 5 = <u>0</u> | |
| 6 | | | | | | Column totals <u>149</u> (A) <u>424</u> (B) | |
| 7 | | | | | | Prevalence Index = B/A = <u>2.85</u> | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | 14 | = Total Cover | | | |
| Woody Vine Stratum | | | | | Hydrophytic Vegetation Indicators: | | |
| Plot Size (| |) | Absolute % Cover | Dominant Species | Indicator Staus | | |
| 1 | | | | | | <input checked="" type="checkbox"/> Rapid test for hydrophytic vegetation | |
| 2 | | | | | | <input checked="" type="checkbox"/> Dominance test is >50% | |
| 3 | | | | | | Prevalence index is ≤3.0* | |
| 4 | | | | | | Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) | |
| 5 | | | | | | Problematic hydrophytic vegetation* (explain) | |
| | | | | | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | |
| | | | | | Definitions of Vegetation Strata: | | |
| | | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | | |
| | | | | | Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. | | |
| | | | | | Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. | | |
| | | | | | Woody vines - All woody vines greater than 3.28 ft in height. | | |
| | | | | | Hydrophytic vegetation present? <u>Y</u> | | |
| Remarks: (Include photo numbers here or on a separate sheet) | | | | | | | |

SOIL
Sampling Point: WET-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric soil present? Y
Remarks:

Due to high water level in pond and flooding into upland area, unable to complete soil boring. Assumed hydric soil due to vegetation and proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
 Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-12
 Investigator(s): L. Simkins Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
 Slope (%): 8-15% Lat.: 42.55716 Long.: -71.59408 Datum: NAD83
 Soil Map Unit Name: Hinckley loamy sand NWI Classification: _____
 Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)
 Due to higher than average seasonal rainfall, flooding is present in some upland areas, however upland locations on steep slopes,
 such as Plot UP-12, exhibit normal circumstances.

SUMMARY OF FINDINGS

| | |
|---|--|
| Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Wetland hydrology present? <u>N</u> | Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.) Plot located on a moderate slope upland from the edge of Plow Shop Pond. A portion of the slope appears to be artificially created with peastone fill material in order to build the recycling facility to the north | |

HYDROLOGY

| | |
|---|---|
| Primary Indicators (minimum of one is required; check all that apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </div> <div style="width: 48%;"> <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4) |
| Field Observations: Surface water present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water table present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | Wetland hydrology present? <u>N</u> |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="height: 40px; border: 1px solid black;"></div> | |
| Remarks: Plot located on a moderate slope upland from the pond. Runoff drains from the recycling facility down this slope toward the pond. | |

VEGETATION - Use scientific names of plants
Sampling Point: UP-12

| Tree Stratum | | | | | 50/20 Thresholds | | |
|---------------------------------|------------------|------------------|-----------------|---|------------------|---------|--|
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | 20% | 50% | |
| 1 <i>Pinus strobus</i> | 50 | Y | FACU | Tree Stratum | 10 | 25 | |
| 2 | | | | Sapling/Shrub Stratum | 0 | 0 | |
| 3 | | | | Herb Stratum | 6 | 15 | |
| 4 | | | | | 2 | 5 | |
| 5 | | | | Dominance Test Worksheet | | | |
| 6 | | | | Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) | | | |
| 7 | | | | Total Number of Dominant Species Across all Strata: <u>4</u> (B) | | | |
| 8 | | | | Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B) | | | |
| 9 | | | | | | | |
| 10 | 50 = Total Cover | | | | | | |
| Sapling/Shrub Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 | | | | OBL species | 0 x 1 = | 0 | |
| 2 | | | | FACW species | 10 x 2 = | 20 | |
| 3 | | | | FAC species | 10 x 3 = | 30 | |
| 4 | | | | FACU species | 70 x 4 = | 280 | |
| 5 | | | | UPL species | 0 x 5 = | 0 | |
| 6 | | | | Column totals | 90 (A) | 330 (B) | |
| 7 | | | | Prevalence Index = B/A = | 3.67 | | |
| 8 | | | | Hydrophytic Vegetation Indicators: | | | |
| 9 | | | | <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | | | |
| 10 | 0 = Total Cover | | | Definitions of Vegetation Strata: | | | |
| | | | | Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. | | | |
| Herb Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Vaccinium corymbosum</i> | 10 | Y | FACW | Hydrophytic vegetation present? <u>N</u> | | | |
| 2 <i>Rubus flagellaris</i> | 10 | Y | FACU | | | | |
| 3 <i>Lysimachia quadrifolia</i> | 5 | N | FACU | | | | |
| 4 <i>Quercus rubra</i> | 5 | N | FACU | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | 30 = Total Cover | | | | | | |
| Woody Vine Stratum | | | | | | | |
| Plot Size (10') | Absolute % Cover | Dominant Species | Indicator Staus | | | | |
| 1 <i>Toxicodendron radicans</i> | 10 | Y | FAC | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| | 10 = Total Cover | | | | | | |

Remarks: (Include photo numbers here or on a separate sheet)

SOIL
Sampling Point: UP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------|-------|---------|--|
| | Color (moist) | % | Color (moist) | % | Type* | Loc** | | |
| 0-1 | | | | | | | | organic material |
| 1-15 | 10YR 2/2 | | | | | | | f-sand, some silt, few m-gravel, dk brown, dry |
| 15-18 | 10YR 4/6 | | | | | | | f-sand, lt brown, dry |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- | |
|--|
| <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

 Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:



ATTACHMENT B

Photograph Log



Photo #1:

#N/A

#N/A

#N/A

#N/A



Photo #2: Date - 5/23/2012

Direction - West

File - DSCN1251

Description - View west along wetland boundary near toe of slope on edge of pond at Railroad Roundhouse.



Photo #3: Date - 5/23/2012 Direction - South File - DSCN1252
 Description - View of upland plot 2 (UP-2); wetland continues east and west.



Photo #4: Date - 5/23/2012 Direction - South File - DSCN1254
 Description - View south from wetland line (left of frame), showing sandy trail running to the left of drainage rip-rap.



Photo #5: Date - 5/17/2012 Direction - South File - Picture 109
Description - View of rip-rap where the drainage source drains to pond.



Photo #6: Date - 5/17/2012 Direction - Southeast File - Picture 115
Description - Southeast view of unnamed cove west of Railroad Roundhouse.



Photo #7: Date - 5/17/2012

Direction - East

File - Picture 138

Description - Wetland plot 4 (WET-4).

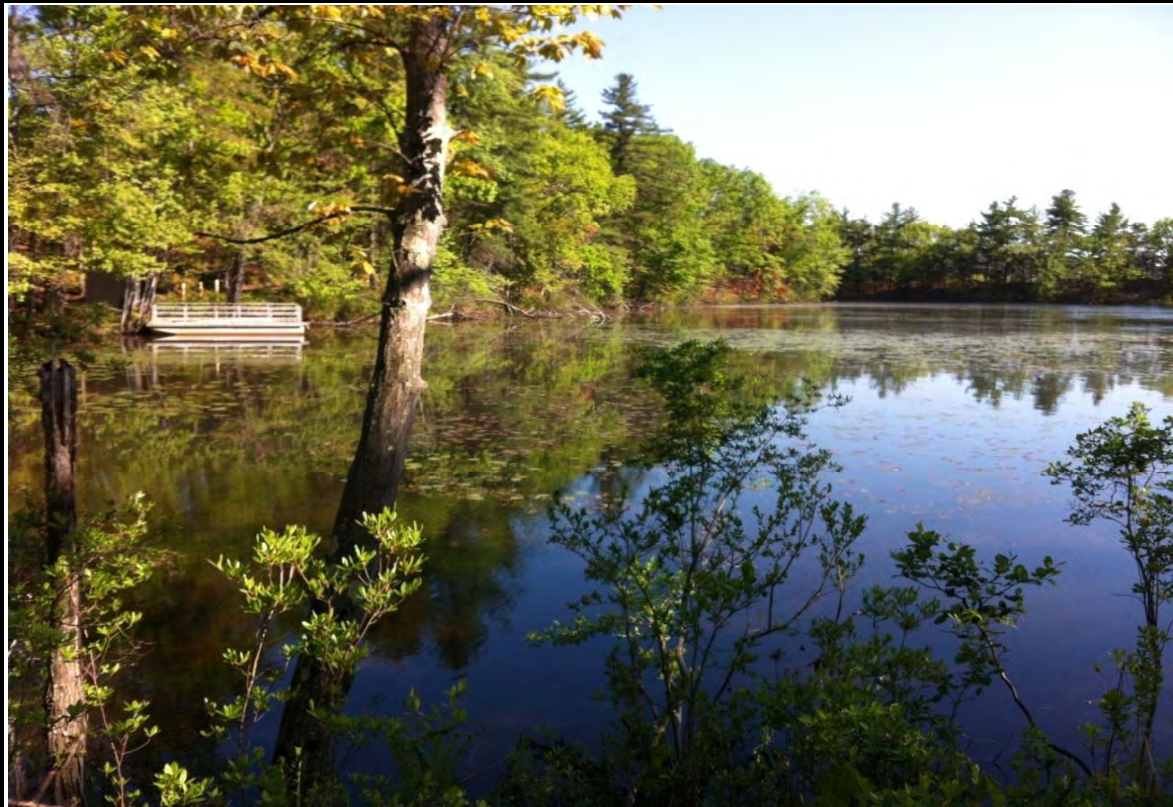


Photo #8: Date - 5/17/2012

Direction - Northeast

File - Picture 123

Description - View of Red Cove. Wetland is only in capillary fringe of pond.

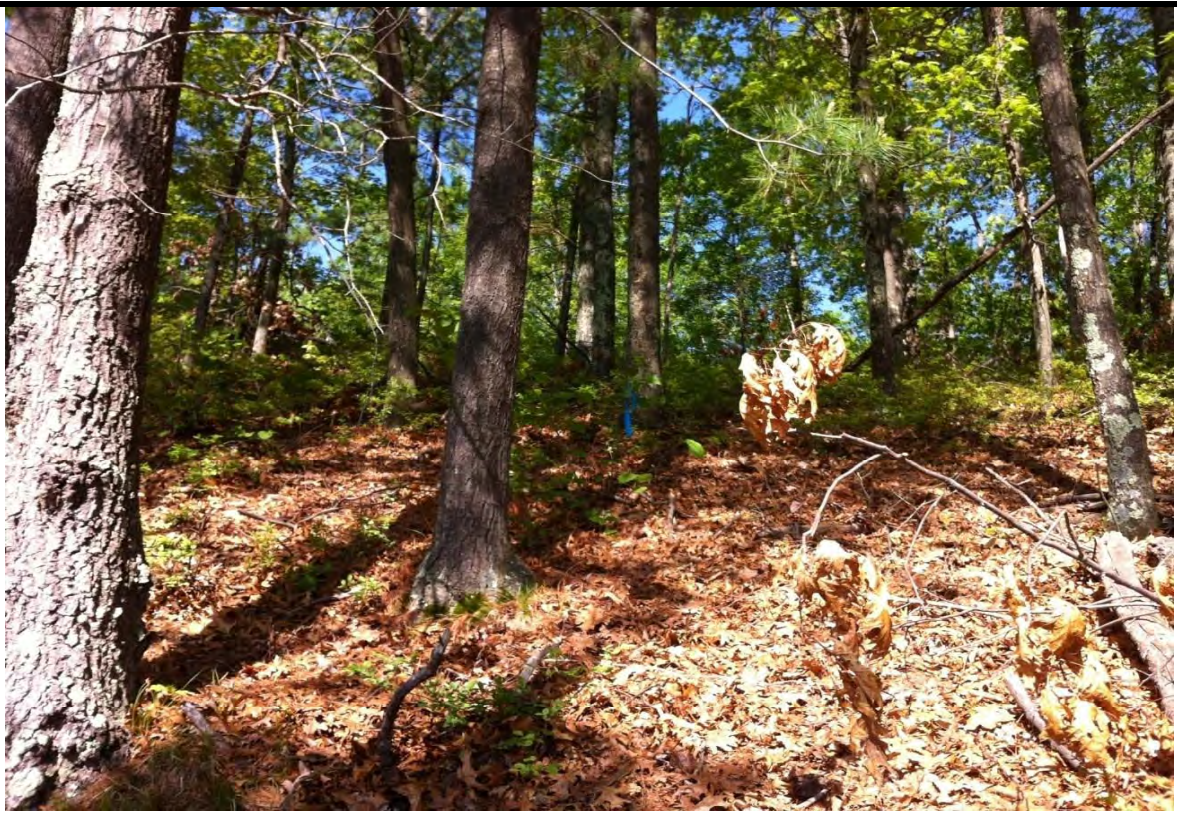


Photo #9: Date - 5/17/2012 Direction - West File - Picture 137
 Description - Upland plot 6 (UP-6).



Photo #10: Date - 6/13/2013 Direction - Northeast File - PTDC0139
 Description - Wetland plot 7 (WET-7), showing elevated water level in pond due to flooding



Photo #11: Date - 6/13/2013

Direction - Northwest

File - PTDC0141

Description - View of forested floodplain on the south side of the Nonacoicus Brook dam.

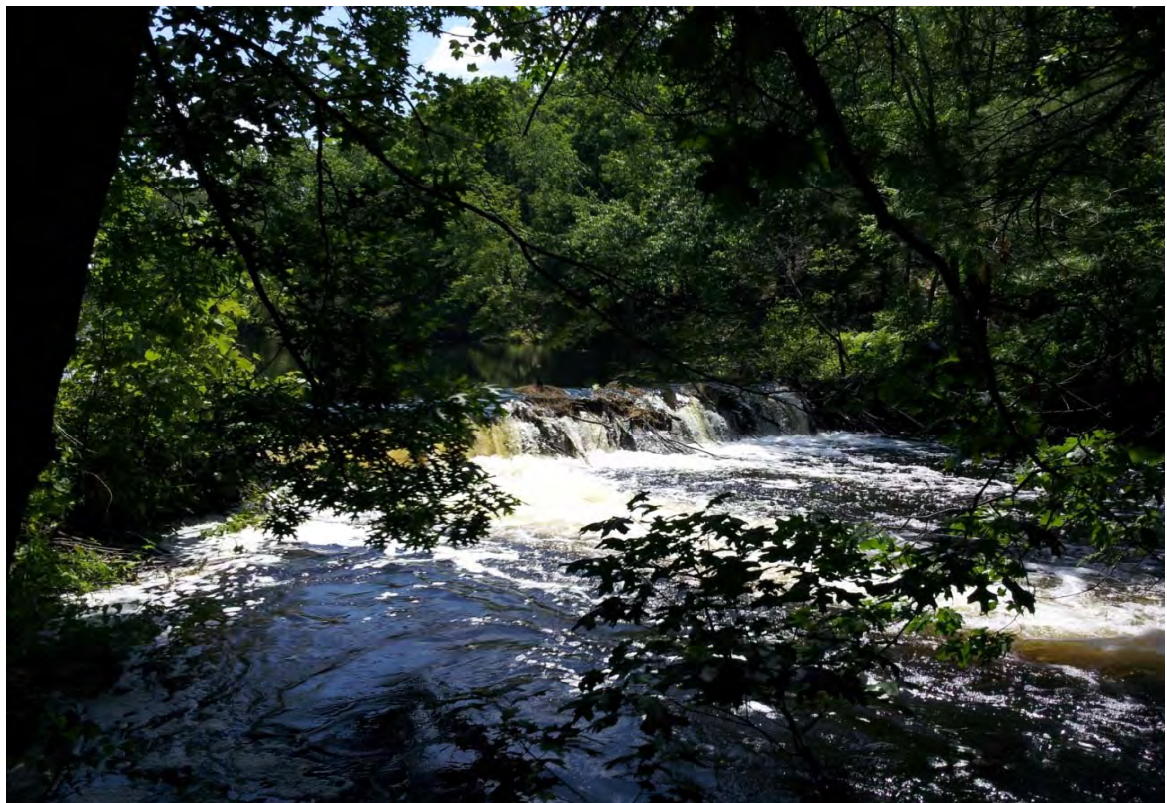


Photo #12: Date - 6/19/2013

Direction - South

File - 20130619_125534

Description - View of Nonacoicus Brook dam from the northern bank.



Photo #13: Date - 6/19/2013 Direction - Northwest File - 20130619_120931
 Description - View of wetland line along northern pond edge leading towards dam.

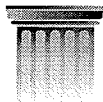


Photo #14: Date - 6/19/2013 Direction - Southeast File - 20130619_114220
 Description - Southeast view of pond near the dam at the northwestern edge.

APPENDIX C

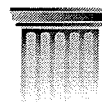
Surface Water Monitoring Forms

(See CD Included Separately)



Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200

TURBIDITY MONITORING LOG SHEET



Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

| | | |
|-------------------------|-----------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Date: 7/30/13 |
|-------------------------|-----------------------|---------------|

LMS
EEF

| | | | | |
|-------------|-------------|-------------|---------------|-------------------------------|
| SW10 | | | | |
| Time: 1220 | Turb: 26.33 | Temp: 26.33 | DO: 6.38 mg/L | Weather/Comments: Clear, 80 |
| Time: _____ | Turb: 9.0 | Temp: _____ | DO: _____ | Weather/Comments: Sample 1220 |

| | | | | |
|-------------|---------------|-------------|---------------|---|
| SW11 | | | | |
| Time: 1100 | Turb: 4.2 NTU | Temp: 25.18 | DO: 6.95 mg/L | Weather/Comments: clear, 80°, 6" deep sample collected 1100 |
| Time: _____ | Turb: _____ | Temp: _____ | DO: _____ | Weather/Comments: _____ |

| | | | | |
|-------------|---------------|-------------|---------------|---|
| SW12 | | | | |
| Time: 1115 | Turb: 3.9 NTU | Temp: 25.24 | DO: 7.10 mg/L | Weather/Comments: clear, 80°, 1 ft deep sample collected @ 1115 |
| Time: _____ | Turb: _____ | Temp: _____ | DO: _____ | Weather/Comments: _____ |

| | | | | |
|-------------|-------------|-------------|---------------|---|
| SW13 | | | | |
| Time: 1120 | Turb: 3.0 | Temp: 25.30 | DO: 6.74 mg/L | Weather/Comments: Clear, 80°, 1 ft Deep |
| Time: _____ | Turb: _____ | Temp: _____ | DO: _____ | Weather/Comments: Sample @ 1120 |

Initial Calibration

Turb - 0 Turb - 126
0 126

Location # SW-11 used for MS/MSD & DUP (Time of DUP: 1110)

All samples Unfiltered, submitted for Total As.



Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET



Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

| | | | |
|---------------------|-----------------------|------------------|----------------|
| Project Name: 10-05 | Project location: PSP | Personnel: EF/BS | Date: 08-01-13 |
|---------------------|-----------------------|------------------|----------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0 |
| Turbidity 126 | 126 | 124 |
| DO 100% | 100.9 | |

| | | | | |
|------------|-----------|-------------|----------|------------------------------------|
| SW10 SW-11 | | | | |
| Time: 0915 | Turb: 3.9 | Temp: 24.74 | DO: 6.69 | Weather/Comments: Sun, 80, 6" Deep |

| | | | | |
|------------|-----------|-------------|----------|-------------------------------------|
| SW11 SW-10 | | | | |
| Time: 1023 | Turb: 4.3 | Temp: 25.51 | DO: 6.65 | Weather/Comments: Sun, 80, 12" Deep |

| | | | | |
|------------|-----------|-------------|----------|-------------------------------------|
| SW12 | | | | |
| Time: 0925 | Turb: 3.8 | Temp: 24.78 | DO: 6.40 | Weather/Comments: Sun, 80, 12" Deep |

| | | | | |
|------------|-----------|-------------|----------|------------------------------------|
| SW13 | | | | |
| Time: 0930 | Turb: 2.8 | Temp: 24.89 | DO: 6.35 | Weather/Comments: Sun 80, 12" Deep |

| | |
|------------------|------|
| MS/MSD Collected | |
| Well ID: | SW11 |

| | |
|---------------|------|
| Dup Collected | |
| Well ID: | SW11 |
| Time: | 0920 |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Railroad Access
Lenny



Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET



Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

| | | | |
|--------------------------------|------------------------------|----------------------------|---------------------|
| Project Name: <u>AC001.005</u> | Project location: <u>PSP</u> | Personnel: <u>LMS, SJL</u> | Date: <u>8/9/13</u> |
|--------------------------------|------------------------------|----------------------------|---------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | <u>0.5</u> | <u>2.1</u> |
| Turbidity 126 | <u>124.7</u> | <u>125.8</u> |
| DO 100% | <u>100.7</u> | <u>101.1</u> |

| | | | | |
|-------------------|----------------------|--------------------|----------------------|------------------------------------|
| SW10 | | | | |
| Time: <u>0905</u> | Turb: <u>2.1 NTU</u> | Temp: <u>23.77</u> | DO: <u>6.56 mg/L</u> | Weather/Comments: <u>rain, 75°</u> |

| | | | | |
|-------------------|------------------|--------------------|-----------------|------------------------------------|
| SW11 | | | | |
| Time: <u>0905</u> | Turb: <u>1.9</u> | Temp: <u>24.02</u> | DO: <u>7.50</u> | Weather/Comments: <u>rain, 75°</u> |

| | | | | |
|-------------------|------------------|--------------------|-----------------|------------------------------------|
| SW12 | | | | |
| Time: <u>0915</u> | Turb: <u>1.5</u> | Temp: <u>23.97</u> | DO: <u>8.59</u> | Weather/Comments: <u>rain, 75°</u> |

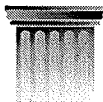
| | | | | |
|-------------------|------------------|--------------------|-----------------|------------------------------------|
| SW13 | | | | |
| Time: <u>0925</u> | Turb: <u>2.7</u> | Temp: <u>24.01</u> | DO: <u>6.88</u> | Weather/Comments: <u>rain, 75°</u> |

| | |
|------------------|------------|
| MS/MSD Collected | |
| Well ID: | <u>N/A</u> |

| | |
|---------------|------------|
| Dup Collected | |
| Well ID: | <u>N/A</u> |
| Time: | |

per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC



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SURFACE WATER LOG SHEET



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Holyoke, MA 01040
413-540-0650

| | | | |
|-------------------------|-----------------------|-------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Personnel: LS, EF | Date: 8/15/13 |
|-------------------------|-----------------------|-------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 124.6 3.2 |
| Turbidity 126 | 126.1 | 129.6 |
| DO 100% | 100.3 | 100.8 |

| | | | |
|------------|-----------|-------------|---|
| SW10 | | | |
| Time: 1045 | Turb: 8.7 | Temp: 22.96 | DO: 6.26 mg/L Weather/Comments: clear, 80 |

| | | | |
|------------|---------------|------------------------|--|
| SW11 | | | |
| Time: 1045 | Turb: 3.5 ntu | Temp: 22.96 (LS) 23.04 | DO: 7.48 (LS) 7.31 mg/L Weather/Comments: clear, 80° |

| | | | |
|------------|---------------|-------------|---|
| SW12 | | | |
| Time: 1050 | Turb: 5.6 ntu | Temp: 22.97 | DO: 7.65 mg/L Weather/Comments: clear, 80 |

| | | | |
|------------|---------------|-------------|--|
| SW13 | | | |
| Time: 1045 | Turb: 3.9 ntu | Temp: 22.96 | DO: 7.48 mg/L Weather/Comments: clear, 80° |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

water level up ~6" in brook - Day 2 pumping
45 min fish survey yielded no dead fish - water calm



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| | | | |
|-------------------------|-----------------------|-------------------|---------------|
| Project Name: AC001.05A | Project location: PSP | Personnel: LS, AT | Date: 8/16/13 |
|-------------------------|-----------------------|-------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.6 |
| Turbidity 126 | 126.0 | 128.1 |
| DO 100% | 100.6% | 102.0% |

| | | | | |
|-------------|-----------|---------------|---------------|-------------------------|
| SW10 | | | | |
| Time: 11:15 | Turb: 6.0 | Temp: 22.32°C | DO: 6.86 mg/L | Weather/Comments: ~76°F |

| | | | | |
|-------------|-----------|---------------|---------------|-------------------------|
| SW11 | | | | |
| Time: 12:10 | Turb: 4.6 | Temp: 23.49°C | DO: 7.45 mg/L | Weather/Comments: ~80°F |

| | | | | |
|-------------|-----------|---------------|---------------|-------------------------|
| SW12 | | | | |
| Time: 12:05 | Turb: 1.8 | Temp: 23.40°C | DO: 7.33 mg/L | Weather/Comments: ~80°F |

| | | | | |
|-------------|-----------|---------------|---------------|-------------------------|
| SW13 | | | | |
| Time: 12:00 | Turb: 1.8 | Temp: 23.42°C | DO: 6.99 mg/L | Weather/Comments: ~80°F |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

45 min fish survey yielded no dead fish - water calm



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| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Personnel: LMS, DM | Date: 8/19/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.3 |
| Turbidity 126 | 126 | 124.7 |
| DO 100% | 100.1 | 100.5 |

| | | | |
|------------|---------------|--------------|---|
| SW10 | | | |
| Time: 1400 | Turb: 2.3 ntu | Temp: 24.55° | DO: 8.26 mg/L Weather/Comments: clear mostly cloudy, 80° |

| | | | |
|------------|---------------|--------------|---|
| SW11 | | | |
| Time: 1330 | Turb: 3.5 ntu | Temp: 26.36° | DO: 7.63 mg/L Weather/Comments: mc, 80° |

| | | | |
|------------|---------------|--------------|---|
| SW12 | | | |
| Time: 1325 | Turb: 3.6 ntu | Temp: 26.44° | DO: 7.10 mg/L Weather/Comments: mc, 80° |

| | | | |
|------------|---------------|--------------|---|
| SW13 | | | |
| Time: 1320 | Turb: 1.9 ntu | Temp: 26.37° | DO: 7.10 mg/L Weather/Comments: mc, 80° |

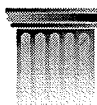
| | |
|------------------|------|
| MS/MSD Collected | |
| Well ID: | SW11 |

| | |
|---------------|------|
| Dup Collected | |
| Well ID: | SW13 |
| Time: | 1335 |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Due to reduced pumping into
Brook, water level returned
to original height

2.5 Hr shoreline survey - no dead fish, ~~around~~ some mussels noted (eastern floater,
no T&E species)



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| | | | |
|--------------------------------|------------------------------|---------------------------|----------------------|
| Project Name: <u>AC001.005</u> | Project location: <u>PSP</u> | Personnel: <u>LMS, DM</u> | Date: <u>8/20/13</u> |
|--------------------------------|------------------------------|---------------------------|----------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | <u>0</u> | <u>0.1</u> |
| Turbidity 126 | <u>126</u> | <u>124.7</u> |
| DO 100% | <u>100.9</u> | <u>101.3</u> |

| | | | | |
|-------------------|----------------------|----------------------|----------------------|-------------------------------------|
| SW10 | | | | |
| Time: <u>1145</u> | Turb: <u>2.3</u> ntu | Temp: <u>24.50</u> ° | DO: <u>8.60</u> mg/L | Weather/Comments: <u>clear, 85°</u> |

| | | | | |
|-------------------|----------------------|----------------------|-----------------|-------------------------------------|
| SW11 | | | | |
| Time: <u>1055</u> | Turb: <u>4.4</u> ntu | Temp: <u>24.84</u> ° | DO: <u>7.50</u> | Weather/Comments: <u>clear, 85°</u> |

| | | | | |
|-------------------|----------------------|----------------------|-----------------|-------------------------------------|
| SW12 | | | | |
| Time: <u>1050</u> | Turb: <u>3.2</u> ntu | Temp: <u>24.77</u> ° | DO: <u>7.20</u> | Weather/Comments: <u>clear, 85°</u> |

| | | | | |
|-------------------|----------------------|----------------------|-----------------|-------------------------------------|
| SW13 | | | | |
| Time: <u>1045</u> | Turb: <u>3.3</u> ntu | Temp: <u>24.52</u> ° | DO: <u>7.08</u> | Weather/Comments: <u>clear, 85°</u> |

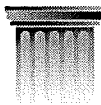
| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

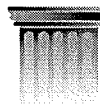
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey conducted, no dead fish collected, water calm.



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| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Personnel: LMS, DM | Date: 8/21/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.2 |
| Turbidity 126 | 126 | 125.7 |
| DO 100% | 101.3 | 103.1 |

| | | | | |
|----------|---------------|-------------|---------------|------------------------------------|
| SW10 | | | | |
| Time: 10 | Turb: 4.1 ntu | Temp: 26.20 | DO: 7.72 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|---------------|-------------|---------------|------------------------------------|
| SW11 | | | | |
| Time: 1105 | Turb: 5.2 ntu | Temp: 26.52 | DO: 7.56 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|---------------|-------------|---------------|------------------------------------|
| SW12 | | | | |
| Time: 1100 | Turb: 4.2 ntu | Temp: 26.44 | DO: 7.39 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|---------------|-------------|---------------|-----------------------------------|
| SW13 | | | | |
| Time: 1055 | Turb: 5.1 ntu | Temp: 26.26 | DO: 7.03 mg/L | Weather/Comments: clear, 85° calm |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min. fish survey conducted, no dead fish collected, water calm
noted sheen on far north & east sides of pond in muck & on SW - appears
to break up and reform, unlike biological sheen or oil.



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|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Personnel: LMS, DM | Date: 8/22/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | |
| Turbidity 126 | 126 | |
| DO 100% | 101.3 | |

| | | | | |
|------------|---------------|--------------|---------------|------------------------------------|
| SW10 | | | | |
| Time: 1120 | Turb: 3.2 ntu | Temp: 25.28° | DO: 6.08 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|---------------|--------------|---------------|------------------------------------|
| SW11 | | | | |
| Time: 1042 | Turb: 6.6 ntu | Temp: 24.98° | DO: 5.51 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|---------------|--------------|---------------|------------------------------------|
| SW12 | | | | |
| Time: 1037 | Turb: 5.9 ntu | Temp: 25.11° | DO: 5.29 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|---------------|--------------|---------------|------------------------------------|
| SW13 | | | | |
| Time: 1030 | Turb: 6.2 ntu | Temp: 24.96° | DO: 5.41 mg/L | Weather/Comments: clear, 85°, calm |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

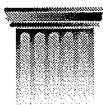
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

SW @ SW11 down ~4" from yesterday - mussels surfacing. Water increases in depth towards SW13.

30 min fish survey - no dead fish found, water calm

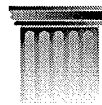
Pond water down approx 2-3" from yesterday

Noted DO lower at sampling stations than in previous days.



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| | | | |
|--------------------------------|------------------------------|---------------------------|----------------------|
| Project Name: <u>AC001.005</u> | Project location: <u>PSP</u> | Personnel: <u>LMS, DM</u> | Date: <u>8/23/13</u> |
|--------------------------------|------------------------------|---------------------------|----------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | <u>0</u> | <u>0.4</u> |
| Turbidity 126 | <u>126</u> | <u>125.1</u> |
| DO 100% | <u>100.9</u> | <u>101.3</u> |

| | | | | |
|--------------------|------------------|--------------------|-----------------|--|
| SW10 | | | | |
| Time: <u>11:15</u> | Turb: <u>9.8</u> | Temp: <u>24.66</u> | DO: <u>5.70</u> | Weather/Comments: <u>clear, 75°, wind 15 mph</u> |

| | | | | |
|--------------------|-------------------|--------------------|-----------------|---|
| SW11 | | | | |
| Time: <u>10:16</u> | Turb: <u>11.4</u> | Temp: <u>24.36</u> | DO: <u>5.85</u> | Weather/Comments: <u>clear, 75°, wind 5 mph</u> |

| | | | | |
|--------------------|------------------|--------------------|-----------------|---|
| SW12 | | | | |
| Time: <u>10:07</u> | Turb: <u>8.4</u> | Temp: <u>24.14</u> | DO: <u>5.60</u> | Weather/Comments: <u>clear, 75°, wind 5 mph</u> |

| | | | | |
|--------------------|------------------|--------------------|-----------------|---|
| SW13 | | | | |
| Time: <u>10:01</u> | Turb: <u>8.5</u> | Temp: <u>23.93</u> | DO: <u>5.27</u> | Weather/Comments: <u>clear, 75°, wind 5 mph</u> |

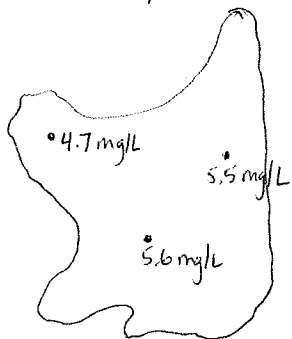
| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Reduced DO levels observed in pond as well as brook. A few DO readings collected from pond @ 6"-1' below surface during fish survey. Approx locations:



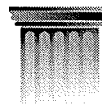
30 min fish survey conducted - no dead fish found, wind 15 mph, some current

4.7
5.6
5.5



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| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Personnel: LMS, AT | Date: 8/26/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 1.0 |
| Turbidity 126 | 126 | 123.9 |
| DO 100% | 101.3 | 101.0 |

| | | | | |
|------------|----------------|--------------|---------------|--|
| SW10 | | | | |
| Time: 0920 | Turb: 11.0 ntu | Temp: 22.75° | DO: 5.78 mg/L | Weather/Comments: 65° overcast, 5 mph breeze |

| | | | | |
|------------|-----------|--------------|----------|---------------------------------------|
| SW11 | | | | |
| Time: 1055 | Turb: 8.6 | Temp: 22.73° | DO: 7.52 | Weather/Comments: 75°, pc, 5 mph wind |

| | | | | |
|------------|-----------|-------------|----------|---------------------------------------|
| SW12 | | | | |
| Time: 1050 | Turb: 8.5 | Temp: 22.65 | DO: 7.07 | Weather/Comments: 70°, pc, 5 mph wind |

| | | | | |
|------------|-----------|--------------|----------|---------------------------------------|
| SW13 | | | | |
| Time: 1042 | Turb: 8.3 | Temp: 22.38° | DO: 6.85 | Weather/Comments: 70°, pc, 5 mph wind |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

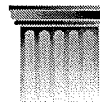
30 min survey for fish - no deceased fish found, however 2 dead fish found in brook, likely the result of the ~~per~~ pumps sucking them in and dropping them in the brook.

DO readings appear to be rising in brook.



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| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: ACOOL.005 | Project location: PSP | Personnel: LMS, DM | Date: 8/27/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.8 |
| Turbidity 126 | 126 | 125.0 |
| DO 100% | 100.7 | 97.3 |

| | | | | |
|------------|----------------|--------------|---------------|---------------------------------------|
| SW10 | | | | |
| Time: 0930 | Turb: 10.1 ntu | Temp: 23.66° | DO: 6.09 mg/L | Weather/Comments: PC, 80°, 5 mph wind |

| | | | | |
|------------|----------------|----------------|---------------|----------------------------------|
| SW11 | | | | |
| Time: 1018 | Turb: 10.4 ntu | Temp: 24.46 °C | DO: 6.75 mg/L | Weather/Comments: PC, 80°, 5 mph |

| | | | | |
|------------|----------------|----------------|---------------|----------------------------------|
| SW12 | | | | |
| Time: 1012 | Turb: 10.8 ntu | Temp: 24.38 °C | DO: 6.59 mg/L | Weather/Comments: PC, 80°, 5 mph |

| | | | | |
|------------|----------------|----------------|---------------|----------------------------------|
| SW13 | | | | |
| Time: 1007 | Turb: 10.6 ntu | Temp: 24.16 °C | DO: 6.60 mg/L | Weather/Comments: PC, 80°, 5 mph |

| | |
|------------------|------|
| MS/MSD Collected | |
| Well ID: | SW11 |

| | |
|---------------|-------|
| Dup Collected | |
| Well ID: | SW12 |
| Time: | 10:14 |

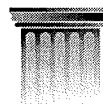
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, slight breeze, water calm



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| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Personnel: LMS, AT | Date: 8/28/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 1.0 |
| Turbidity 126 | 126 | 125.5 |
| DO 100% | 100.8 | 100.3 |

| | | | | |
|-----------------|------------|----------------|---------------|------------------------------------|
| SW10 SW12 (LMS) | | | | |
| Time: 9:42 | Turb: 11.6 | Temp: 23.35 °C | DO: 5.62 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|-----------|----------------|---------------|------------------------------------|
| SW11 | | | | |
| Time: 9:37 | Turb: 8.6 | Temp: 23.15 °C | DO: 4.88 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|------------|-----------|----------------|---------------|------------------------------------|
| SW12 | | | | |
| Time: 9:32 | Turb: 9.5 | Temp: 23.12 °C | DO: 4.80 mg/L | Weather/Comments: clear, 85°, calm |

| | | | | |
|-----------------|------------|----------------|---------------|------------------------------------|
| SW13 SW10 (LMS) | | | | |
| Time: 9:00 | Turb: 12.2 | Temp: 23.84 °C | DO: 6.21 mg/L | Weather/Comments: clear, 85°, calm |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, water calm

DO appears to be dropping in brook, no pumping/discharge at time of sampling, water at lowest level yet in brook, ~4", mussels exposed in various areas.



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| | | | | | | | |
|---------------|-----------|-------------------|-----|------------|--------|-------|---------|
| Project Name: | AC001.005 | Project location: | PSP | Personnel: | LMS AT | Date: | 8/29/13 |
|---------------|-----------|-------------------|-----|------------|--------|-------|---------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.1 |
| Turbidity 126 | 126 | 128.3 |
| DO 100% | 101.2 | 100.3 |

| | | | | | | |
|---------|-------|----------|-----------|-------------------|--|--|
| SW10 | | | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: | | |
| 9:03 am | 11.9 | 23.83 °C | 4.22 mg/L | ~68°F Overcast | | |

| | | | | | | |
|---------|-------|----------|----------|-------------------|--|--|
| SW11 | | | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: | | |
| 9:42 am | 14.2 | 22.86 °C | 6.5 mg/L | ~68°F Overcast | | |

| | | | | | | |
|---------|-------|----------|-----------|-------------------|--|--|
| SW12 | | | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: | | |
| 9:37 am | 10.3 | 22.91 °C | 5.74 mg/L | ~68°F Overcast | | |

| | | | | | | |
|---------|-------|----------|-----------|-------------------|--|--|
| SW13 | | | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: | | |
| 9:33 am | 8.7 | 22.92 °C | 5.35 mg/L | ~68°F Overcast | | |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

NA per RL

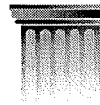
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, water calm



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508-339-3200

SURFACE WATER LOG SHEET



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Holyoke, MA 01040
413-540-0650

| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.005 | Project location: PSP | Personnel: LMS, DM | Date: 8/30/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.2 |
| Turbidity 126 | 126 | 127.8 |
| DO 100% | 101.0 | 101.3 |

| SW10 | | | | |
|-------------------|-------------------|-------------|-----------------|---|
| Time: 2pm 0954 | Turb: 2pm 19.6 | Temp: 20.88 | DO: 2pm 3.54 | Weather/Comments: drifted too close to shore, data turb & DO date |
| 0958 | 12.9 | | 3.97 | recollected further out from shore, temp same |

| SW11 | | | | |
|------------|------------|-------------|----------|------------------------------------|
| Time: 0912 | Turb: 15.1 | Temp: 19.43 | DO: 5.45 | Weather/Comments: clear, 80°, calm |

| SW12 | | | | |
|------------|------------|-------------|----------|------------------------------------|
| Time: 0906 | Turb: 10.3 | Temp: 19.60 | DO: 3.49 | Weather/Comments: clear, 80°, calm |

| SW13 | | | | |
|------------|------------|-------------|----------|------------------------------------|
| Time: 0859 | Turb: 11.7 | Temp: 19.35 | DO: 7.01 | Weather/Comments: clear, 80°, calm |

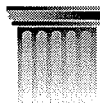
| MS/MSD Collected | |
|------------------|--|
| Well ID: | |

| Dup Collected | |
|---------------|--|
| Well ID: | |
| Time: | |

N/A per RL

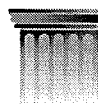
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey completed, no deceased fish found, water/wind calm



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| | | | |
|-------------------------|-----------------------|--------------------|--------------|
| Project Name: AC001.05A | Project location: PSP | Personnel: LMS, DM | Date: 9/3/13 |
|-------------------------|-----------------------|--------------------|--------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.5 |
| Turbidity 126 | 126 | 125.7 |
| DO 100% | 100.4 | 101.2 |

| | | | | |
|------------|------------|-------------|----------|---------------------------------|
| SW10 | | | | |
| Time: 0934 | Turb: 26.0 | Temp: 24.84 | DO: 4.95 | Weather/Comments: pc, 85°, calm |

| | | | | |
|------------|------------|-------------|----------|---------------------------------|
| SW11 | | | | |
| Time: 1022 | Turb: 22.8 | Temp: 25.79 | DO: 7.58 | Weather/Comments: pc, 85°, calm |

| | | | | |
|------------|------------|-------------|----------|---------------------------------|
| SW12 | | | | |
| Time: 1016 | Turb: 20.3 | Temp: 25.26 | DO: 6.68 | Weather/Comments: pc, 85°, calm |

| | | | | |
|------------|------------|-------------|----------|---------------------------------|
| SW13 | | | | |
| Time: 1007 | Turb: 18.4 | Temp: 24.87 | DO: 6.70 | Weather/Comments: pc, 85°, calm |

| | |
|------------------|------|
| MS/MSD Collected | |
| Well ID: | SW11 |

| | |
|---------------|-----------|
| Dup Collected | |
| Well ID: | SW13 1009 |
| Time: | 1 |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey completed, no deceased fish found, water calm, no current



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| | | | |
|--------------------------------|------------------------------|-----------------------|---------------------|
| Project Name: <u>AE001.05A</u> | Project location: <u>PSP</u> | Personnel: <u>LMS</u> | Date: <u>9/4/13</u> |
|--------------------------------|------------------------------|-----------------------|---------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | <u>0</u> | |
| Turbidity 126 | <u>126</u> | |
| DO 100% | <u>100.7</u> | |

| | | | | |
|--|-------|-------|-----|-------------------|
| SW10 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| <u>Not collected - location unavailable by boat, sample will be collected 9/5/13</u> | | | | |

| | | | | |
|-------------------|-----------------------|---------------------|----------------------|---|
| SW11 | | | | |
| Time: <u>0900</u> | Turb: <u>20.4 ntu</u> | Temp: <u>21.13°</u> | DO: <u>1.86 mg/L</u> | Weather/Comments: <u>clear, 80°, 10-15 mph wind</u> |

| | | | | |
|-------------------|-----------------------|---------------------|----------------------|---|
| SW12 | | | | |
| Time: <u>0850</u> | Turb: <u>38.3 ntu</u> | Temp: <u>20.01°</u> | DO: <u>1.36 mg/L</u> | Weather/Comments: <u>clear, 80°, 10-15 mph wind</u> |

| | | | | |
|-------------------|-----------------------|---------------------|----------------------|---|
| SW13 | | | | |
| Time: <u>0840</u> | Turb: <u>21.4 ntu</u> | Temp: <u>20.82°</u> | DO: <u>1.69 mg/L</u> | Weather/Comments: <u>clear, 80°, 10-15 mph wind</u> |

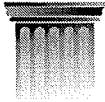
| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

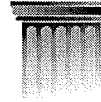
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Brook conditions: water @ lowest level yet (~2-3", mostly pools w/out connectivity), many mussel beds exposed. Photos taken.



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| | | | |
|--------------------------|--------------------------|-------------------|-------------------|
| Project Name: ACM105A | Project location: PSP | Personnel: EEF | Date: 09.05.13 |
|--------------------------|--------------------------|-------------------|-------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 70.6 |
| Turbidity 126 | 126 | 125.1 |
| DO 100% | 100.4 | 103.1 |

| SW10 | | | | |
|---------------|---------------|---------------|-------------|--|
| Time: 0918 | Turb: 23.0 | Temp: 22.0 | DO: 5.19 | Weather/Comments: Cloudy w/ AM 70° Showers |

| SW11 | | | | |
|---------------|---------------|----------------|--------------|--------------------------|
| Time: 0952 | Turb: 21.8 | Temp: 18.09 | DO: 10.03 | Weather/Comments: SAA |

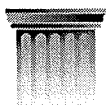
| SW12 | | | | |
|---------------|---------------|----------------|-------------|--------------------------|
| Time: 0947 | Turb: 17.5 | Temp: 20.05 | DO: 7.01 | Weather/Comments: SAA |

| SW13 | | | | |
|---------------|-----------------------------------|----------------|-------------|--------------------------|
| Time: 0943 | Turb: 15.9 10.07 | Temp: 18.07 | DO: 9.93 | Weather/Comments: SAA |

| MS/MSD Collected | |
|------------------|--|
| Well ID: | |

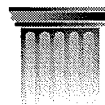
| Dup Collected | |
|---------------|--|
| Well ID: | |
| Time: | |

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| | | | |
|-------------------------|-----------------------|----------------|----------------|
| Project Name: AC001.05A | Project location: PSP | Personnel: BAS | Date: 09-06-13 |
|-------------------------|-----------------------|----------------|----------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0 |
| Turbidity 126 | 126 | 125.5 |
| DO 100% | 101.3 | 101.7 |

| | | | | |
|----------------------|------------|-------------|----------|------------------------------|
| SW10 PSP-SW10-090613 | | | | |
| Time: 09:10 | Turb: 20.8 | Temp: 18.50 | DO: 6.63 | Weather/Comments: Sunny 61°C |

| | | | | |
|----------------------|------------|-------------|-----------|------------------------------|
| SW11 PSP-SW11-090613 | | | | |
| Time: 09:31 | Turb: 19.1 | Temp: 17.30 | DO: 11.09 | Weather/Comments: Sunny 61°F |

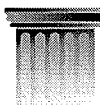
| | | | | |
|----------------------|------------|-------------|-----------|------------------------------|
| SW12 PSP-SW12-090613 | | | | |
| Time: 09:36 | Turb: 14.6 | Temp: 13.22 | DO: 11.60 | Weather/Comments: Sunny 61°F |

| | | | | |
|----------------------|------------|-------------|----------|------------------------------|
| SW13 PSP-SW13-090613 | | | | |
| Time: 09:43 | Turb: 14.2 | Temp: 17.48 | DO: 8.58 | Weather/Comments: Sunny 61°F |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

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| | | | | | | | |
|---------------|-----------|-------------------|-----|------------|--------|-------|---------|
| Project Name: | AC001.05A | Project location: | PSP | Personnel: | LMS/DM | Date: | 9/10/13 |
|---------------|-----------|-------------------|-----|------------|--------|-------|---------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.5 |
| Turbidity 126 | 126 | 124.7 |
| DO 100% | 101.4 | 101.3 |

| | | | | |
|-------|-------|-------|------|------------------------------------|
| SW10 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| 0945 | 18.8 | 18.63 | 5.58 | mostly cloudy, 70°, 10-15 mph wind |

| | | | | |
|-------|-------|-------|------|--------------------|
| SW11 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| 1031 | 15.5 | 18.46 | 8.02 | mc, 70°, 10-15 mph |

| | | | | |
|-------|-------|-------|------|--------------------|
| SW12 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| 1026 | 17.1 | 18.49 | 7.98 | mc, 70°, 10-15 mph |

| | | | | |
|-------|-------|-------|------|--------------------|
| SW13 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| 1019 | 18.8 | 18.42 | 7.88 | mc, 70°, 10-15 mph |

| | |
|------------------|------|
| MS/MSD Collected | |
| Well ID: | SW11 |

| | |
|---------------|------|
| Dup Collected | |
| Well ID: | SW13 |
| Time: | 1018 |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

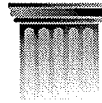
4" & 6" pumps running upon arrival, water in brook up by ~6" w/ flow

30 min fish survey yielded no deceased fish, wind ~15 mph, current



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| | | | |
|--------------------------------|------------------------------|---------------------------|----------------------|
| Project Name: <i>AC001.005</i> | Project location: <i>PSP</i> | Personnel: <i>LMS, DM</i> | Date: <i>9/13/13</i> |
|--------------------------------|------------------------------|---------------------------|----------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | <i>0</i> | <i>0.5</i> |
| Turbidity 126 | <i>126</i> | <i>125.7</i> |
| DO 100% | <i>99.4</i> | <i>99.5</i> |

| | | | | |
|-------------------|-------------------|--------------------|-----------------|--|
| SW10 | | | | |
| Time: <i>0932</i> | Turb: <i>20.2</i> | Temp: <i>24.42</i> | DO: <i>5.17</i> | Weather/Comments: <i>pc, 80°, calm</i> |

| | | | | |
|-------------------|-------------------|--------------------|-----------------|--|
| SW11 | | | | |
| Time: <i>1020</i> | Turb: <i>17.5</i> | Temp: <i>24.71</i> | DO: <i>7.23</i> | Weather/Comments: <i>pc, 80°, calm</i> |

| | | | | |
|-------------------|-------------------|--------------------|-----------------|--|
| SW12 | | | | |
| Time: <i>1008</i> | Turb: <i>22.0</i> | Temp: <i>24.44</i> | DO: <i>6.61</i> | Weather/Comments: <i>pc, 80°, calm</i> |

| | | | | |
|-------------------|-------------------|--------------------|-----------------|--|
| SW13 | | | | |
| Time: <i>1003</i> | Turb: <i>19.1</i> | Temp: <i>24.19</i> | DO: <i>6.38</i> | Weather/Comments: <i>pc, 80°, calm</i> |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |
| Dup. Collected | |
| Well ID: | |
| Time: | |

N/A per RL

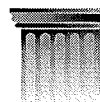
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

*Previous night, heavy rains ~ approx 4" rainfall on pond.
30 min fish survey yielded no deceased fish, water calm*



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| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.05A | Project location: PSP | Personnel: LMS, DM | Date: 9/17/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.5 |
| Turbidity 126 | 126.0 | 125.4 |
| DO 100% | 102.2 | 102.1 |

| | | | | |
|------------|---------------|--------------|----------|--|
| SW10 | | | | |
| Time: 0935 | Turb: 14.1ntu | Temp: 15.75° | DO: 5.60 | Weather/Comments: clear, 60°, 10-15 mph wind |

| | | | | |
|------------|---------------|---------------|---------------|--|
| SW11 | | | | |
| Time: 1016 | Turb: 10.5ntu | Temp: 14.78°C | DO: 8.08 mg/L | Weather/Comments: clear, 60°, 10-15 mph wind |

| | | | | |
|------------|---------------|---------------|---------------|--|
| SW12 | | | | |
| Time: 1011 | Turb: 10.5ntu | Temp: 14.38°C | DO: 7.96 mg/L | Weather/Comments: clear, 60°, 10-15 mph wind |

| | | | | |
|------------|---------------|---------------|---------------|--|
| SW13 | | | | |
| Time: 1004 | Turb: 10.6ntu | Temp: 14.30°C | DO: 7.77 mg/L | Weather/Comments: clear, 60°, 10-15 mph wind |

| | |
|------------------|------|
| MS/MSD Collected | |
| Well ID: | SW11 |

| | |
|---------------|------|
| Dup Collected | |
| Well ID: | SW13 |
| Time: | 1005 |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, some current/wind gusts

Water level in
Brook @ dam elevated ~6", photo taken @ SW11.



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| | | | |
|--------------------------------|-------------------------------|----------------------------|----------------------|
| Project Name: <u>AC001.005</u> | Project location: <u>PSP.</u> | Personnel: <u>LMS, DPM</u> | Date: <u>9/19/13</u> |
|--------------------------------|-------------------------------|----------------------------|----------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.2 |
| Turbidity 126 | 126 | 125.7 |
| DO 100% | 101.4 | 101.1 |

| | | | | |
|-------------------|----------------------|----------------------|----------------------|---|
| SW10 | | | | |
| Time: <u>0918</u> | Turb: <u>9.2 ntu</u> | Temp: <u>16.77°C</u> | DO: <u>6.45 mg/L</u> | Weather/Comments: <u>clear, 65°, wind 5 mph</u> |

| | | | | |
|-------------------|-----------------------|----------------------|----------------------|---|
| SW11 | | | | |
| Time: <u>0958</u> | Turb: <u>19.7 ntu</u> | Temp: <u>15.67°C</u> | DO: <u>6.49 mg/L</u> | Weather/Comments: <u>clear, 65°, wind 5 mph</u> |

| | | | | |
|-------------------|-----------------------|----------------------|----------------------|---|
| SW12 | | | | |
| Time: <u>0951</u> | Turb: <u>17.9 ntu</u> | Temp: <u>15.14°C</u> | DO: <u>5.85 mg/L</u> | Weather/Comments: <u>clear, 65°, wind 5 mph</u> |

| | | | | |
|-------------------|-----------------------|----------------------|----------------------|---|
| SW13 | | | | |
| Time: <u>0944</u> | Turb: <u>16.8 ntu</u> | Temp: <u>14.71°C</u> | DO: <u>5.60 mg/L</u> | Weather/Comments: <u>clear, 65°, wind 5 mph</u> |

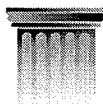
| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A
per RL

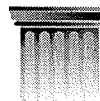
ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish



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| | | | |
|---------------------------|--------------------------|------------------|------------------|
| Project Name: Accotona | Project location: PSP | Personnel: EF | Date: 9/24/13 |
|---------------------------|--------------------------|------------------|------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 5.6 |
| Turbidity 126 | 126 | 120.54 |
| DO 100% | 100.6 | 98.0 |

| SW10 | | | | |
|---------------|----------------|----------------|-------------|-----------------------------|
| Time: 0912 | Turb: 13.70 | Temp: 15.45 | DO: 7.11 | Weather/Comments: Sun 55 |

| SW11 | | | | |
|---------------|---------------|----------------|-------------|-----------------------------|
| Time: 1011 | Turb: 26.8 | Temp: 15.10 | DO: 7.39 | Weather/Comments: Sun 55 |

| SW12 | | | | |
|---------------|---------------|----------------|-------------|-----------------------------|
| Time: 1003 | Turb: 23.5 | Temp: 14.43 | DO: 6.49 | Weather/Comments: Sun 55 |

| SW13 | | | | |
|---------------|----------------|----------------|-------------|-----------------------------|
| Time: 0955 | Turb: 12.70 | Temp: 13.70 | DO: 6.23 | Weather/Comments: Sun 55 |

| MS/MSD Collected | |
|------------------|------|
| Well ID: | SW13 |

| Dup Collected | |
|---------------|------|
| Well ID: | SW12 |
| Time: | 1003 |

* Stream bed below dam swollen
approx 3-4 feet deep in ~~middle~~ middle.
Could not walk to locations.
Used canoe to get SW-11, 12 + 13

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| | | | |
|-------------------------|-----------------------|---------------------|-----------------|
| Project Name: ACD01.005 | Project location: PSP | Personnel: LMS, DPA | Date: 9/27/2013 |
|-------------------------|-----------------------|---------------------|-----------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.5 |
| Turbidity 126 | 126 | 125.7 |
| DO 100% | 101.6 | 101.6 |

| SW10 | | | | |
|------------|----------------|---------------|---------------|--|
| Time: 0918 | Turb: 16.4 ntu | Temp: 17.41°C | DO: 5.93 mg/L | Weather/Comments: mostly cloudy, 60°, 5 mph wind |

| SW11 | | | | |
|------------|----------------|---------------|---------------|--|
| Time: 0959 | Turb: 25.2 ntu | Temp: 17.05°C | DO: 6.31 mg/L | Weather/Comments: mostly cloudy, 60°, 5 mph wind |

| SW12 | | | | |
|------------|----------------|---------------|---------------|--|
| Time: 0952 | Turb: 21.6 ntu | Temp: 16.97°C | DO: 6.21 mg/L | Weather/Comments: mostly cloudy, 60°, 5 mph wind |

| SW13 | | | | |
|------------|----------------|---------------|---------------|--|
| Time: 0945 | Turb: 22.3 ntu | Temp: 16.92°C | DO: 5.85 mg/L | Weather/Comments: mostly cloudy, 60°, 5 mph wind |

| MS/MSD Collected | |
|------------------|--|
| Well ID: | |

| Dup Collected | |
|---------------|--|
| Well ID: | |
| Time: | |

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

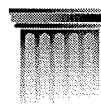
30 min fish survey yielded no deceased fish, no current, calm

Beaver dam causing high water in brook near dam was destroyed/dismantled as of 9/26/13 and water levels at dam decreasing. Level approx 2' deep at time of sampling.



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508-339-3200

SURFACE WATER LOG SHEET



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4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

| | | | |
|-------------------------|-----------------------|--------------------|---------------|
| Project Name: AC001.05A | Project location: PSP | Personnel: LMS, DM | Date: 10/1/13 |
|-------------------------|-----------------------|--------------------|---------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.3 |
| Turbidity 126 | 126.0 | 126.0 |
| DO 100% | 100.7 | 100.3 |

| | | | | |
|------------|----------------|----------------|---------------|------------------------------------|
| SW10 | | | | |
| Time: 0914 | Turb: 13.4 ntu | Temp: 15.94 °C | DO: 7.17 mg/l | Weather/Comments: clear, 60°, calm |

| | | | | |
|------------|----------------|----------------|---------------|------------------------------------|
| SW11 | | | | |
| Time: 0954 | Turb: 14.8 ntu | Temp: 15.27 °C | DO: 8.98 mg/l | Weather/Comments: clear, 60°, calm |

| | | | | |
|------------|----------------|----------------|---------------|------------------------------------|
| SW12 | | | | |
| Time: 0947 | Turb: 15.1 ntu | Temp: 15.00 °C | DO: 8.45 mg/l | Weather/Comments: clear, 60°, calm |

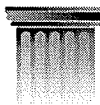
| | | | | |
|------------|----------------|----------------|---------------|---|
| SW13 | | | | |
| Time: 0939 | Turb: 12.2 ntu | Temp: 14.77 °C | DO: 8.41 mg/l | Weather/Comments: 0941 Frob Dup clear, 60°, calm |

| | |
|------------------|------|
| MS/MSD Collected | |
| Well ID: | SW11 |

| | |
|---------------|------|
| Dup Collected | |
| Well ID: | SW13 |
| Time: | 0941 |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, water calm
water in brook down to 6", mud banks exposed



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Holyoke, MA 01040
413-540-0650

| | | | |
|-------------------------------------|------------------------------------|---------------------------|----------------------|
| Project Name: <u>Plow Shop Pond</u> | Project location: <u>AL001-005</u> | Personnel: <u>WJB/LMS</u> | Date: <u>10-3-13</u> |
|-------------------------------------|------------------------------------|---------------------------|----------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | <u>0.0</u> | <u>0.2</u> |
| Turbidity 126 | <u>126</u> | <u>126</u> |
| DO 100% | <u>101.5</u> | <u>101.5</u> |

| | | | | |
|---|-------|-------|-----|-------------------|
| SW10 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| <u>inaccessible - no sample collected</u> | | | | |

| | | | | |
|--------------|-------------|------------------------------|-------------|-------------------|
| SW11 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| <u>08:50</u> | <u>14.2</u> | <u>16.03</u> <u>15.98</u> | <u>8.19</u> | |

| | | | | |
|--------------|-------------|--------------|-------------|-------------------|
| SW12 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| <u>08:45</u> | <u>14.0</u> | <u>15.98</u> | <u>7.90</u> | |

| | | | | |
|--------------|-------------|--------------|-------------|-------------------|
| SW13 | | | | |
| Time: | Turb: | Temp: | DO: | Weather/Comments: |
| <u>08:37</u> | <u>14.3</u> | <u>15.97</u> | <u>7.86</u> | <u>✓</u> |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC



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Holyoke, MA 01040
413-540-0650

| | | | |
|--------------------------------|------------------------------|----------------------------|----------------------|
| Project Name: <u>AC001.05A</u> | Project location: <u>PSP</u> | Personnel: <u>LMS, RPM</u> | Date: <u>10/8/13</u> |
|--------------------------------|------------------------------|----------------------------|----------------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | <u>0</u> | <u>0.1</u> |
| Turbidity 126 | <u>126</u> | <u>126</u> |
| DO 100% | <u>101.3</u> | <u>101.3</u> |

| | | | | |
|-------------------|-----------------------|-----------------------|----------------------|-------------------|
| SW10 | | | | |
| Time: <u>0904</u> | Turb: <u>11.6 ntu</u> | Temp: <u>16.87 °C</u> | DO: <u>5.96 mg/L</u> | Weather/Comments: |

| | | | | |
|-------------------|-----------------------|-----------------------|----------------------|-------------------|
| SW11 | | | | |
| Time: <u>0956</u> | Turb: <u>14.5 ntu</u> | Temp: <u>16.09 °C</u> | DO: <u>1.11 mg/L</u> | Weather/Comments: |

| | | | | |
|-------------------|-----------------------|-----------------------|----------------------|-----------------------------------|
| SW12 | | | | |
| Time: <u>0945</u> | Turb: <u>12.2 ntu</u> | Temp: <u>13.43 °C</u> | DO: <u>0.99 mg/L</u> | Weather/Comments: <u>stagnant</u> |

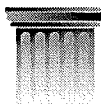
| | | | | |
|-------------------|-----------------------|-----------------------|----------------------|---|
| SW13 | | | | |
| Time: <u>0934</u> | Turb: <u>12.8 ntu</u> | Temp: <u>14.15 °C</u> | DO: <u>1.50 mg/L</u> | Weather/Comments: <u>Water stagnant</u> <u>Field Dup</u> |

| | |
|------------------|-------------|
| MS/MSD Collected | |
| Well ID: | <u>SW11</u> |

| | |
|---------------|-------------|
| Dup Collected | |
| Well ID: | <u>SW13</u> |
| Time: | <u>0935</u> |

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish. Water elevated in pond - pumps have been off for previous 5 days. Water level in brook at lowest level yet / stagnant pools, despite rainfall. Photos taken.



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| | | | |
|-------------------------|-----------------------|--------------------|----------------|
| Project Name: AC001.05A | Project location: PSP | Personnel: Lms, Dm | Date: 10/11/13 |
|-------------------------|-----------------------|--------------------|----------------|

| Standard | Initial Calibration | Post Calibration |
|---------------|---------------------|------------------|
| Turbidity 0 | 0 | 0.1 |
| Turbidity 126 | 126 | 125.9 |
| DO 100% | 101.3 | 101.3 |

| | | | | |
|------------|---------------|----------------|---------------|-------------------|
| SW10 | | | | |
| Time: 0907 | Turb: 9.9 ntu | Temp: 14.20 °C | DO: 7.50 mg/L | Weather/Comments: |

| | | | | |
|------------|---------------|----------------|---------------|-------------------|
| SW11 | | | | |
| Time: 1014 | Turb: 7.2 ntu | Temp: 12.62 °C | DO: 1.17 mg/L | Weather/Comments: |

| | | | | |
|------------|---------------|----------------|---------------|-------------------|
| SW12 | | | | |
| Time: 0957 | Turb: 5.7 ntu | Temp: 11.71 °C | DO: 1.42 mg/L | Weather/Comments: |

| | | | | |
|------------|---------------|----------------|---------------|-------------------|
| SW13 | | | | |
| Time: 0939 | Turb: 9.5 ntu | Temp: 11.88 °C | DO: 1.77 mg/L | Weather/Comments: |

| | |
|------------------|--|
| MS/MSD Collected | |
| Well ID: | |

| | |
|---------------|--|
| Dup Collected | |
| Well ID: | |
| Time: | |

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30-min fish survey yielded no dead fish. Water calm, no current
Pumps remain off, brook water level extremely low, dry in spots, mussel beds exposed



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1314587 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS, MA |
| Project Number: | AC001.005 |
| Report Date: | 08/05/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1314587-01 | PSP-SW-11-080113 | PLOW SHOP POND | 08/01/13 09:15 |
| L1314587-02 | PSP-SW-12-080113 | PLOW SHOP POND | 08/01/13 09:25 |
| L1314587-03 | PSP-SW-13-080113 | PLOW SHOP POND | 08/01/13 09:30 |
| L1314587-04 | PSP-SW-10-080113 | PLOW SHOP POND | 08/01/13 10:23 |
| L1314587-05 | FD-080113 | PLOW SHOP POND | 08/01/13 09:20 |

Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Metals

The ICSA, associated with L1314587-01 through -05, has a concentration greater than the LOD for Arsenic.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/05/13

METALS

Project Name: DEVENS, MA

Lab Number: L1314587

Project Number: AC001.005

Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-01

Date Collected: 08/01/13 09:15

Client ID: PSP-SW-11-080113

Date Received: 08/01/13

Sample Location: PLOW SHOP POND

Field Prep: Not Specified

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 14.16 | | ug/l | 0.5000 | 0.0850 | 1 | 08/02/13 10:30 | 08/05/13 10:31 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS, MA

Lab Number: L1314587

Project Number: AC001.005

Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-02

Date Collected: 08/01/13 09:25

Client ID: PSP-SW-12-080113

Date Received: 08/01/13

Sample Location: PLOW SHOP POND

Field Prep: Not Specified

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 10.26 | | ug/l | 0.5000 | 0.0850 | 1 | 08/02/13 10:30 | 08/05/13 10:37 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS, MA

Lab Number: L1314587

Project Number: AC001.005

Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-03

Date Collected: 08/01/13 09:30

Client ID: PSP-SW-13-080113

Date Received: 08/01/13

Sample Location: PLOW SHOP POND

Field Prep: Not Specified

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 9.466 | | ug/l | 0.5000 | 0.0850 | 1 | 08/02/13 10:30 | 08/05/13 10:38 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS, MA

Lab Number: L1314587

Project Number: AC001.005

Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-04

Date Collected: 08/01/13 10:23

Client ID: PSP-SW-10-080113

Date Received: 08/01/13

Sample Location: PLOW SHOP POND

Field Prep: Not Specified

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 8.517 | | ug/l | 0.5000 | 0.0850 | 1 | 08/02/13 10:30 | 08/05/13 10:39 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS, MA

Lab Number: L1314587

Project Number: AC001.005

Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-05

Date Collected: 08/01/13 09:20

Client ID: FD-080113

Date Received: 08/01/13

Sample Location: PLOW SHOP POND

Field Prep: Not Specified

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 12.30 | | ug/l | 0.5000 | 0.0850 | 1 | 08/02/13 10:30 | 08/05/13 10:40 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS, MA

Lab Number: L1314587

Project Number: AC001.005

Report Date: 08/05/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG626150-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.0850 | 1 | 08/02/13 10:30 | 08/05/13 10:30 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS, MA

Project Number: AC001.005

Lab Number: L1314587

Report Date: 08/05/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG626150-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 108 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS, MA

Lab Number: L1314587

Project Number: AC001.005

Report Date: 08/05/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG626150-4 WG626150-5 QC Sample: L1314587-01 Client ID: PSP-SW-11-080113 | | | | | | | | | | | | |
| Arsenic, Total | 14.16 | 1000 | 1100 | 108 | | 1147 | 113 | | 80-120 | 4 | | 20 |

Project Name: DEVENS, MA

Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1314587

Report Date: 08/05/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG626150-3 QC Sample: L1314587-01 Client ID: PSP-SW-11-080113 | | | | | | |
| Arsenic, Total | 14.16 | 16.19 | ug/l | 13 | | 20 |

Project Name: DEVENS, MA

Project Number: AC001.005

Lab Number: L1314587

Report Date: 08/05/13

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|----------------------|
| L1314587-01A | Plastic 500ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1314587-01B | Plastic 500ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1314587-01C | Plastic 500ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1314587-02A | Plastic 500ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1314587-03A | Plastic 500ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1314587-04A | Plastic 500ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1314587-05A | Plastic 500ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab:

8/11/13

ALPHA Job #:

61314587

Report Information - Data Deliverables

☐ ADEx

☐ EMAIL

Billing Information

☐ Same as Client info

PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods

☐ Yes ☐ No CT RCP Analytical Methods

☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)

☐ Yes ☐ No NPDES RGP

☐ Other State /Fed Program

Criteria

Project Information

Project Name:

Devens MA

Project Location:

Flow Shop Pond

Project #:

A001-005

Project Manager:

Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard

☒ RUSH (only confirmed if pre-approved!)

Date Due:

24hr
8/2/13

Client Information

Client:

Sovereign Consulting

Address:

4 Open Square Way Suite 307
Holyoke MA

Phone:

413-540-0650

Email:

RLeary@sovercan.com

Additional Project Information:

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2

SVOC: ☐ ABN ☐ PAH

METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15

EPH: ☐ RCRA5 ☐ RCRA6 ☐ PP13

VPH: ☐ Ranges & Targets ☐ Ranges Only

PCB ☐ PEST

TPH: ☐ Quant Only ☐ Fingerprint

Total Arsenic by 6000

SAMPLE INFO

Filtration

☐ Field

☐ Lab to do

Preservation

☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID
(Lab Use Only)

Sample ID

Collection

Date

Time

Sample Matrix

Sampler Initials

| | | | | | |
|---------|------------------------|--------|------|----|----|
| 14567 - | 1 PSP-SW-11-080113 | 080113 | 0915 | SW | BS |
| | 1 PSP-SW-11-080113-MS | | 0915 | | |
| | 1 PSP-SW-11-080113-MSD | | 0915 | | |
| | 2 PSP-SW-12-080113 | | 0925 | | |
| | 3 PSP-SW-13-080113 | | 0930 | | |
| | 4 PSP-SW-10-080113 | | 1023 | | |
| | 5 FD-080113 | | 0920 | | |

Container Type

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1315383 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/12/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1315383-01 | PSP-SW11-080913 | PLOW SHOP POND | 08/09/13 09:05 |
| L1315383-02 | PSP-SW12-080913 | PLOW SHOP POND | 08/09/13 09:15 |
| L1315383-03 | PSP-SW13-080913 | PLOW SHOP POND | 08/09/13 09:25 |
| L1315383-04 | PSP-SW10-080913 | PLOW SHOP POND | 08/09/13 09:50 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/12/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-01
Client ID: PSP-SW11-080913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/09/13 09:05
Date Received: 08/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 6.080 | | ug/l | 0.5000 | 0.1610 | 1 | 08/09/13 15:11 | 08/09/13 18:50 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-02
 Client ID: PSP-SW12-080913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/09/13 09:15
 Date Received: 08/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 5.750 | | ug/l | 0.5000 | 0.1610 | 1 | 08/09/13 15:11 | 08/09/13 19:15 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-03
Client ID: PSP-SW13-080913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/09/13 09:25
Date Received: 08/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 5.820 | | ug/l | 0.5000 | 0.1610 | 1 | 08/09/13 15:11 | 08/09/13 19:21 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-04
Client ID: PSP-SW10-080913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/09/13 09:50
Date Received: 08/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 5.900 | | ug/l | 0.5000 | 0.1610 | 1 | 08/09/13 15:11 | 08/09/13 19:31 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG627916-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 08/09/13 15:11 | 08/09/13 18:25 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG627916-2 | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG627916-4 QC Sample: L1315383-01 Client ID: PSP-SW11-080913 | | | | | | | | | | | | |
| Arsenic, Total | 6.080 | 120 | 140.1 | 112 | | - | - | | 80-120 | - | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1315383
Report Date: 08/12/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG627916-3 QC Sample: L1315383-01 Client ID: PSP-SW11-080913 | | | | | | |
| Arsenic, Total | 6.080 | 6.010 | ug/l | 1 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1315383-01A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1315383-02A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1315383-03A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1315383-04A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

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Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂-B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

Date Rec'd in Lab:

ALPHA Job #:

4315383

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way
Holyoke, MA
Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: ACool.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ **RUSH** (only confirmed if pre-approved!)

Date Due:

24 HR
8/12/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program Criteria

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2

SVOC: ☐ ABN ☐ PAH

METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15

METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13

EPH: ☐ Ranges & Targets ☐ Ranges Only

VPH: ☐ Ranges & Targets ☐ Ranges Only

☐ PCB ☐ PEST

TPH: ☐ Quant Only ☐ Fingerprint

Total Arsenic by 6020

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do

Preservation
☐ Lab to do

1000

Sample Comments

[illegible]**Container Type**

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1315898 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/16/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1315898-01 | PSP-SW13-081513 | PLOW SHOP POND | 08/15/13 10:45 |
| L1315898-02 | PSP-SW12-081513 | PLOW SHOP POND | 08/15/13 10:50 |
| L1315898-03 | PSP-SW11-081513 | PLOW SHOP POND | 08/15/13 10:55 |
| L1315898-04 | PSP-SW10-081513 | PLOW SHOP POND | 08/15/13 13:20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Metals

L1315898-01 through -04 and the associated batch QC have elevated detection limits for Arsenic due to matrix interferences encountered during analysis; all samples had detections above the elevated reporting limit. The WG629441-1 Method Blank, associated with L1315898-01 through -04, has a concentration greater than one half the reporting limit and <RL and is "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations detected are $>\frac{1}{2}$ RL and less than 10x the concentrations in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/16/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-01
Client ID: PSP-SW13-081513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/15/13 10:45
Date Received: 08/15/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 7.878 | B | ug/l | 1.500 | 0.1610 | 1 | 08/16/13 08:17 | 08/16/13 11:45 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-02
Client ID: PSP-SW12-081513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/15/13 10:50
Date Received: 08/15/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 7.472 | B | ug/l | 1.500 | 0.1610 | 1 | 08/16/13 08:17 | 08/16/13 11:59 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-03
Client ID: PSP-SW11-081513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/15/13 10:55
Date Received: 08/15/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 7.023 | B | ug/l | 1.500 | 0.1610 | 1 | 08/16/13 08:17 | 08/16/13 12:03 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-04
 Client ID: PSP-SW10-081513
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/15/13 13:20
 Date Received: 08/15/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 5.725 | B | ug/l | 1.500 | 0.1610 | 1 | 08/16/13 08:17 | 08/16/13 12:06 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG629441-1 | | | | | | | | | | |
| Arsenic, Total | 1.054 | J | ug/l | 1.500 | 0.1610 | 1 | 08/16/13 08:17 | 08/16/13 11:35 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG629441-2 | | | | | | | | |
| Arsenic, Total | 89 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629441-4 QC Sample: L1315898-01 Client ID: PSP-SW13-081513 | | | | | | | | | | | | |
| Arsenic, Total | 7.878B | 120 | 120.5 | 94 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629441-3 QC Sample: L1315898-01 Client ID: PSP-SW13-081513 | | | | | | |
| Arsenic, Total | 7.878B | 7.724 | ug/l | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1315898-01A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |
| L1315898-02A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |
| L1315898-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |
| L1315898-04A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

CHAIN OF CUSTODY

PAGE OF

Date Rec'd in Lab:

8/15/13

ALPHA Job #:

L1315848

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540-0650

Email: RLeary@Savcon.com

Additional Project Information:

Project Information

Project Name: Devens
Project Location: Play Shop Pond

Project #: Acool.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ ~~RUSH~~ (only confirmed if pre-approved!)

Date Due: 24 HR 8/16/13

Report Information - Data Deliverables

☐ ADE_x ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program Criteria

ANALYSIS

VOC: ☐ 8260 ☐ 824 ☐ 524.2

SVOC: ☐ ABN ☐ PAH

METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15

EPH: ☐ RCRA5 ☐ RCRA8 ☐ PP13

VPH: ☐ Ranges & Targets ☐ Ranges Only

☐ PCB ☐ PEST

TPH: ☐ Quant Only ☐ Fingerprint

Total Arsenic by 6020

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do

Preservation
☐ Lab to do

[illegible]**Container Type**

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H = Na₂S₂O₃
I= Ascorbic Acid
J = NH₄Cl
K= Zn Acetate
Q= Other

Container Type

Preservative

Relinquished By:

8/15/13 15/16

Received By:

Date/Time

8/15/13 15/0

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1315970 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/19/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1315970-01 | PSP-SW10-081613 | PLOW SHOP POND | 08/16/13 11:15 |
| L1315970-02 | PSP-SW11-081613 | PLOW SHOP POND | 08/16/13 12:10 |
| L1315970-03 | PSP-SW12-081613 | PLOW SHOP POND | 08/16/13 12:05 |
| L1315970-04 | PSP-SW13-081613 | PLOW SHOP POND | 08/16/13 12:00 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Metals

L1315970-01 through -04 and the associated batch QC have elevated detection limits for Arsenic due to matrix interferences encountered during analysis; however, all samples had detections above the elevated reporting limit.

The WG629608-1 Method Blank, associated with L1315970-01 through -04, has a concentration greater than one half the reporting limit and is "J" qualified for arsenic. The associated field sample results are "B" qualified if the concentrations detected are $> \frac{1}{2}$ RL and less than 10x the concentrations in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/19/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-01
Client ID: PSP-SW10-081613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/16/13 11:15
Date Received: 08/16/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.116 | | ug/l | 1.000 | 0.1610 | 1 | 08/16/13 15:30 | 08/17/13 11:42 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-02
 Client ID: PSP-SW11-081613
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/16/13 12:10
 Date Received: 08/16/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 8.948 | | ug/l | 1.000 | 0.1610 | 1 | 08/16/13 15:30 | 08/17/13 11:56 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-03
 Client ID: PSP-SW12-081613
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/16/13 12:05
 Date Received: 08/16/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 8.120 | | ug/l | 1.000 | 0.1610 | 1 | 08/16/13 15:30 | 08/17/13 12:00 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-04
Client ID: PSP-SW13-081613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/16/13 12:00
Date Received: 08/16/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 8.673 | | ug/l | 1.000 | 0.1610 | 1 | 08/16/13 15:30 | 08/17/13 12:03 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG629608-1 | | | | | | | | | | |
| Arsenic, Total | 0.7980 | J | ug/l | 1.000 | 0.1610 | 1 | 08/16/13 15:30 | 08/17/13 11:35 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG629608-2 | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629608-4 QC Sample: L1315970-01 Client ID: PSP-SW10-081613 | | | | | | | | | | | | |
| Arsenic, Total | 9.116 | 120 | 133.6 | 104 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629608-3 QC Sample: L1315970-01 Client ID: PSP-SW10-081613 | | | | | | |
| Arsenic, Total | 9.116 | 9.095 | ug/l | 0 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1315970-01A | Plastic 500ml HNO3 preserved | A | <2 | 5.4 | Y | Absent | DOD-AS-6020T(180) |
| L1315970-02A | Plastic 500ml HNO3 preserved | A | <2 | 5.4 | Y | Absent | DOD-AS-6020T(180) |
| L1315970-03A | Plastic 500ml HNO3 preserved | A | <2 | 5.4 | Y | Absent | DOD-AS-6020T(180) |
| L1315970-04A | Plastic 500ml HNO3 preserved | A | <2 | 5.4 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316109 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/20/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316109-01 | PSP-SW10-081913 | PLOW SHOP POND | 08/19/13 14:00 |
| L1316109-02 | PSP-SW11-081913 | PLOW SHOP POND | 08/19/13 13:30 |
| L1316109-03 | PSP-SW12-081913 | PLOW SHOP POND | 08/19/13 13:25 |
| L1316109-04 | PSP-SW13-081913 | PLOW SHOP POND | 08/19/13 13:20 |
| L1316109-05 | FD-081913 | PLOW SHOP POND | 08/19/13 13:35 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Total Metals

L1316109-01 through -05 and the associated batch QC have elevated detection limits for arsenic due to matrix interferences encountered during analysis; all samples had detections above the elevated reporting limit. The WG630101-1 Method Blank, associated with L1316109-01 through -05, has a concentration greater than one half the reporting limit and is "J" qualified for arsenic. The associated field sample results are "B" qualified if the concentrations detected are $> \frac{1}{2}$ RL and less than 10x the concentrations in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/20/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-01
Client ID: PSP-SW10-081913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/19/13 14:00
Date Received: 08/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.831 | B | ug/l | 2.000 | 0.1610 | 1 | 08/20/13 07:49 | 08/20/13 14:54 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-02
 Client ID: PSP-SW11-081913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/19/13 13:30
 Date Received: 08/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 11.72 | B | ug/l | 2.000 | 0.1610 | 1 | 08/20/13 07:49 | 08/20/13 14:40 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-03
Client ID: PSP-SW12-081913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/19/13 13:25
Date Received: 08/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 10.81 | B | ug/l | 2.000 | 0.1610 | 1 | 08/20/13 07:49 | 08/20/13 14:58 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-04
 Client ID: PSP-SW13-081913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/19/13 13:20
 Date Received: 08/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.968 | B | ug/l | 2.000 | 0.1610 | 1 | 08/20/13 07:49 | 08/20/13 15:13 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-05
 Client ID: FD-081913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/19/13 13:35
 Date Received: 08/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.904 | B | ug/l | 2.000 | 0.1610 | 1 | 08/20/13 07:49 | 08/20/13 15:17 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG630101-1 | | | | | | | | | | |
| Arsenic, Total | 1.796 | J | ug/l | 2.000 | 0.1610 | 1 | 08/20/13 07:49 | 08/20/13 14:26 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG630101-2 | | | | | | | | |
| Arsenic, Total | 99 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG630101-3 WG630101-4 QC Sample: L1316109-02 Client ID: PSP-SW11-081913 | | | | | | | | | | | | |
| Arsenic, Total | 11.72B | 120 | 129.5 | 98 | | 127.1 | 96 | | 80-120 | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316109-01A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316109-02A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316109-02B | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316109-02C | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316109-03A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316109-04A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316109-05A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



CHAIN OF CUSTODY

PAGE _____ OF _____

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Devers
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 8/20/13 24 HR

Date Rec'd in Lab: 8/19/13

ALPHA Job #: L1316109

Report Information - Data Deliverables

☐ ADEX ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program Criteria

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way
Holyoke, MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler Initials | VOC: | SVOC: | METAL | METAL | EPH: <input type="checkbox"/> | VPH: <input type="checkbox"/> | <input type="checkbox"/> PCB | TPH: <input type="checkbox"/> | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

James

8/19/13 1650

William McCloud

8/19/13 1650

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316164 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/21/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316164-01 | PSP-SW10-082013 | PLOW SHOP POND | 08/20/13 11:45 |
| L1316164-02 | PSP-SW11-082013 | PLOW SHOP POND | 08/20/13 10:55 |
| L1316164-03 | PSP-SW12-082013 | PLOW SHOP POND | 08/20/13 10:50 |
| L1316164-04 | PSP-SW13-082013 | PLOW SHOP POND | 08/20/13 10:45 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/21/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-01
Client ID: PSP-SW10-082013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/20/13 11:45
Date Received: 08/20/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 8.920 | | ug/l | 0.5000 | 0.1610 | 1 | 08/20/13 15:26 | 08/21/13 13:39 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-02
Client ID: PSP-SW11-082013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/20/13 10:55
Date Received: 08/20/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.640 | | ug/l | 0.5000 | 0.1610 | 1 | 08/20/13 15:26 | 08/21/13 14:22 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-03
Client ID: PSP-SW12-082013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/20/13 10:50
Date Received: 08/20/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.160 | | ug/l | 0.5000 | 0.1610 | 1 | 08/20/13 15:26 | 08/21/13 14:28 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-04
 Client ID: PSP-SW13-082013
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/20/13 10:45
 Date Received: 08/20/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 8.750 | | ug/l | 0.5000 | 0.1610 | 1 | 08/20/13 15:26 | 08/21/13 14:35 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG630304-1 | | | | | | | | | | |
| Arsenic, Total | 0.2400 | J | ug/l | 0.5000 | 0.1610 | 1 | 08/20/13 15:26 | 08/21/13 13:27 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG630304-2 | | | | | | | | |
| Arsenic, Total | 103 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630304-4 QC Sample: L1316164-01 Client ID: PSP-SW10-082013 | | | | | | | | | | | | |
| Arsenic, Total | 8.920 | 120 | 132.3 | 103 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630304-3 QC Sample: L1316164-01 Client ID: PSP-SW10-082013 | | | | | | |
| Arsenic, Total | 8.920 | 8.650 | ug/l | 3 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316164-01A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1316164-02A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1316164-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1316164-04A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

CHAIN OF CUSTODY

PAGE OF

Date Rec'd in Lab: 4/20/13

ALPHA Job #: 41316164

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: ACO01.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 HR
8/21/13

Report Information - Data Deliverables

☐ ADE_x ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program Criteria _____

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holbrook, MA

Phone: 412-540-6650

Email: RLeary@sovcon.com

Additional Project Information:

[illegible]**Container Type**

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316260 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/22/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316260-01 | PSP-SW10-082113 | PLOW SHOP POND | 08/21/13 10:05 |
| L1316260-02 | PSP-SW11-082113 | PLOW SHOP POND | 08/21/13 11:05 |
| L1316260-03 | PSP-SW12-082113 | PLOW SHOP POND | 08/21/13 11:00 |
| L1316260-04 | PSP-SW13-082113 | PLOW SHOP POND | 08/21/13 10:55 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/22/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-01
Client ID: PSP-SW10-082113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/21/13 10:05
Date Received: 08/21/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 8.920 | | ug/l | 0.5000 | 0.1610 | 1 | 08/21/13 15:00 | 08/21/13 19:56 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-02
Client ID: PSP-SW11-082113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/21/13 11:05
Date Received: 08/21/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 10.25 | | ug/l | 0.5000 | 0.1610 | 1 | 08/21/13 15:00 | 08/21/13 20:40 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-03
 Client ID: PSP-SW12-082113
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/21/13 11:00
 Date Received: 08/21/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.800 | | ug/l | 0.5000 | 0.1610 | 1 | 08/21/13 15:00 | 08/21/13 20:46 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-04
Client ID: PSP-SW13-082113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/21/13 10:55
Date Received: 08/21/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.740 | | ug/l | 0.5000 | 0.1610 | 1 | 08/21/13 15:00 | 08/21/13 20:52 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG630591-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 08/21/13 15:00 | 08/21/13 19:44 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG630591-2 | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630591-4 QC Sample: L1316260-01 Client ID: PSP-SW10-082113 | | | | | | | | | | | | |
| Arsenic, Total | 8.920 | 120 | 140.9 | 110 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630591-3 QC Sample: L1316260-01 Client ID: PSP-SW10-082113 | | | | | | |
| Arsenic, Total | 8.920 | 9.130 | ug/l | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316260-01A | Plastic 250ml HNO3 preserved | A | <2 | 5.3 | Y | Absent | DOD-AS-6020T(180) |
| L1316260-02A | Plastic 250ml HNO3 preserved | A | <2 | 5.3 | Y | Absent | DOD-AS-6020T(180) |
| L1316260-03A | Plastic 250ml HNO3 preserved | A | <2 | 5.3 | Y | Absent | DOD-AS-6020T(180) |
| L1316260-04A | Plastic 250ml HNO3 preserved | A | <2 | 5.3 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316360 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/23/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316360-01 | PSP-SW10-082213 | PLOW SHOP POND | 08/22/13 11:20 |
| L1316360-02 | PSP-SW11-082213 | PLOW SHOP POND | 08/22/13 10:42 |
| L1316360-03 | PSP-SW12-082213 | PLOW SHOP POND | 08/22/13 10:37 |
| L1316360-04 | PSP-SW13-082213 | PLOW SHOP POND | 08/22/13 10:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/23/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-01
 Client ID: PSP-SW10-082213
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/22/13 11:20
 Date Received: 08/22/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.110 | | ug/l | 0.5000 | 0.1610 | 1 | 08/22/13 14:28 | 08/23/13 14:16 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-02
Client ID: PSP-SW11-082213
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/22/13 10:42
Date Received: 08/22/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 10.27 | | ug/l | 0.5000 | 0.1610 | 1 | 08/22/13 14:28 | 08/23/13 15:00 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-03
 Client ID: PSP-SW12-082213
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/22/13 10:37
 Date Received: 08/22/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.770 | | ug/l | 0.5000 | 0.1610 | 1 | 08/22/13 14:28 | 08/23/13 15:06 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-04
 Client ID: PSP-SW13-082213
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/22/13 10:30
 Date Received: 08/22/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.460 | | ug/l | 0.5000 | 0.1610 | 1 | 08/22/13 14:28 | 08/23/13 15:12 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG630881-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 08/22/13 14:28 | 08/23/13 14:04 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG630881-2 | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630881-4 QC Sample: L1316360-01 Client ID: PSP-SW10-082213 | | | | | | | | | | | | |
| Arsenic, Total | 9.110 | 120 | 136.3 | 106 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630881-3 QC Sample: L1316360-01 Client ID: PSP-SW10-082213 | | | | | | |
| Arsenic, Total | 9.110 | 9.390 | ug/l | 3 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316360-01A | Plastic 250ml HNO3 preserved | A | <2 | 3.5 | Y | Absent | DOD-AS-6020T(180) |
| L1316360-02A | Plastic 250ml HNO3 preserved | A | <2 | 3.5 | Y | Absent | DOD-AS-6020T(180) |
| L1316360-03A | Plastic 250ml HNO3 preserved | A | <2 | 3.5 | Y | Absent | DOD-AS-6020T(180) |
| L1316360-04A | Plastic 250ml HNO3 preserved | A | <2 | 3.5 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S₂-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B₅+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

Date Rec'd in Lab: 6/22/13

ALPHA Job #: 61316360

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: ACool-005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ **RUSH** (only confirmed if pre-approved!)

Date Due: 24 HR

Report Information - Data Deliverables

☐ ADEx

EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods☐ Yes ☐ No CT RCP Analytical Methods☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)☐ Yes ☐ No NPDES RGP☐ Other State /Fed. Program _____ Criteria

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

[illegible]**Container Type**

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
Q= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316476 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/26/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316476-01 | PSP-SW10-082313 | PLOW SHOP POND | 08/23/13 11:15 |
| L1316476-02 | PSP-SW11-082313 | PLOW SHOP POND | 08/23/13 10:17 |
| L1316476-03 | PSP-SW12-082313 | PLOW SHOP POND | 08/23/13 10:08 |
| L1316476-04 | PSP-SW13-082313 | PLOW SHOP POND | 08/23/13 10:02 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/26/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-01
Client ID: PSP-SW10-082313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/23/13 11:15
Date Received: 08/23/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 10.30 | | ug/l | 0.5000 | 0.1610 | 1 | 08/23/13 15:02 | 08/26/13 15:02 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-02
 Client ID: PSP-SW11-082313
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/23/13 10:17
 Date Received: 08/23/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.88 | | ug/l | 0.5000 | 0.1610 | 1 | 08/23/13 15:02 | 08/26/13 15:21 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-03
 Client ID: PSP-SW12-082313
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/23/13 10:08
 Date Received: 08/23/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 11.90 | | ug/l | 0.5000 | 0.1610 | 1 | 08/23/13 15:02 | 08/26/13 15:40 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-04
 Client ID: PSP-SW13-082313
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/23/13 10:02
 Date Received: 08/23/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 11.74 | | ug/l | 0.5000 | 0.1610 | 1 | 08/23/13 15:02 | 08/26/13 15:46 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG631191-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 08/23/13 15:02 | 08/26/13 14:50 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG631191-2 | | | | | | | | |
| Arsenic, Total | 108 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG631191-4 QC Sample: L1316476-01 Client ID: PSP-SW10-082313 | | | | | | | | | | | | |
| Arsenic, Total | 10.30 | 120 | 136.0 | 105 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG631191-3 QC Sample: L1316476-01 Client ID: PSP-SW10-082313 | | | | | | |
| Arsenic, Total | 10.30 | 10.85 | ug/l | 5 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316476-01A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |
| L1316476-02A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |
| L1316476-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |
| L1316476-04A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316592 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/27/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316592-01 | PSP-SW10-082613 | PLOW SHOP POND | 08/26/13 09:20 |
| L1316592-02 | PSP-SW11-082613 | PLOW SHOP POND | 08/26/13 10:55 |
| L1316592-03 | PSP-SW12-082613 | PLOW SHOP POND | 08/26/13 10:50 |
| L1316592-04 | PSP-SW13-082613 | PLOW SHOP POND | 08/26/13 10:42 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/27/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-01
 Client ID: PSP-SW10-082613
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/26/13 09:20
 Date Received: 08/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 11.34 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 08:25 | 08/27/13 15:51 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-02
Client ID: PSP-SW11-082613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/26/13 10:55
Date Received: 08/26/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 11.93 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 08:25 | 08/27/13 16:28 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-03
 Client ID: PSP-SW12-082613
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/26/13 10:50
 Date Received: 08/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 11.72 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 08:25 | 08/27/13 16:34 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-04
 Client ID: PSP-SW13-082613
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/26/13 10:42
 Date Received: 08/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 11.33 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 08:25 | 08/27/13 16:40 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG631770-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 08:25 | 08/27/13 15:38 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG631770-2 | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG631770-3 WG631770-4 QC Sample: L1316595-04 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | ND | 120 | 125.6 | 105 | | 127.6 | 106 | | 80-120 | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316592-01A | Plastic 250ml HNO3 preserved | A | <2 | 2.0 | Y | Absent | DOD-AS-6020T(180) |
| L1316592-02A | Plastic 250ml HNO3 preserved | A | <2 | 2.0 | Y | Absent | DOD-AS-6020T(180) |
| L1316592-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.0 | Y | Absent | DOD-AS-6020T(180) |
| L1316592-04A | Plastic 250ml HNO3 preserved | A | <2 | 2.0 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 18 of 21 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

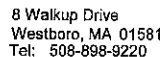
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



PAGE OF

Date Rec'd in Lab: 8/26/13

ALPHA Job #: L1316592

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ **RUSH** (only confirmed if pre-approved!)

Date Due: 8/27/13 24 Hr.

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed. Program Criteria

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H = Na₂S₂O₃
I= Ascorbic Acid
J = NH₄Cl
K= Zn Acetate
Q= Other

Container Type

Preservative

Relinquished By:

Date/Time 26/13 1545

Received By:

Date/Time

6/20/13 154

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316645 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/28/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316645-01 | PSP-SW10-082713 | PLOW SHOP POND | 08/27/13 09:30 |
| L1316645-02 | PSP-SW11-082713 | PLOW SHOP POND | 08/27/13 10:18 |
| L1316645-03 | PSP-SW12-082713 | PLOW SHOP POND | 08/27/13 10:12 |
| L1316645-04 | PSP-SW13-082713 | PLOW SHOP POND | 08/27/13 10:07 |
| L1316645-05 | FD-082713 | PLOW SHOP POND | 08/27/13 10:14 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/28/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-01
 Client ID: PSP-SW10-082713
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/27/13 09:30
 Date Received: 08/27/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 10.93 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 15:28 | 08/27/13 19:44 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-02
 Client ID: PSP-SW11-082713
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/27/13 10:18
 Date Received: 08/27/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.79 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 15:28 | 08/27/13 20:03 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-03
Client ID: PSP-SW12-082713
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/27/13 10:12
Date Received: 08/27/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.56 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 15:28 | 08/27/13 20:58 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-04
 Client ID: PSP-SW13-082713
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/27/13 10:07
 Date Received: 08/27/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.41 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 15:28 | 08/27/13 21:04 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-05
 Client ID: FD-082713
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/27/13 10:14
 Date Received: 08/27/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.57 | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 15:28 | 08/27/13 21:10 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG631938-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 08/27/13 15:28 | 08/27/13 19:32 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG631938-2 | | | | | | | | |
| Arsenic, Total | 107 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG631938-3 WG631938-4 QC Sample: L1316645-02 Client ID: PSP-SW11-082713 | | | | | | | | | | | | |
| Arsenic, Total | 13.79 | 120 | 142.7 | 107 | | 143.6 | 108 | | 80-120 | 1 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316645-01A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1316645-02A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1316645-02B | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1316645-02C | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1316645-03A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1316645-04A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |
| L1316645-05A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

CHAIN OF CUSTODY

PAGE OF

Date Rec'd In Lab: 8/27/13

ALPHA Job #: 61316645

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ **RUSH** (only confirmed if pre-approved!)

Date Due: 24 Hr
8/28/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way
Holyoke, MA

Phone: 412-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

[illegible]**Container Type**

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H = Na₂S₂O₃
I= Ascorbic Acid
J = NH₄Cl
K= Zn Acetate
Q= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316789 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/29/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316789-01 | PSP-SW10-082813 | PLOW SHOP POND | 08/28/13 09:00 |
| L1316789-02 | PSP-SW11-082813 | PLOW SHOP POND | 08/28/13 09:37 |
| L1316789-03 | PSP-SW12-082813 | PLOW SHOP POND | 08/28/13 09:32 |
| L1316789-04 | PSP-SW13-082813 | PLOW SHOP POND | 08/28/13 09:42 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Metals

L1316789-01 through -04 and the associated Batch QC have elevated detection limits due to the matrix interferences encountered during analysis; however, all samples had detections above the elevated reporting limit.

The WG632435-1 Method Blank, associated with L1316789-01 through -04, has a concentration greater than one half the reporting limit and <RL and "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations detected are $> \frac{1}{2}$ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/29/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-01
 Client ID: PSP-SW10-082813
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/28/13 09:00
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.27 | | ug/l | 1.000 | 0.1610 | 1 | 08/29/13 08:29 | 08/29/13 12:35 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-02
Client ID: PSP-SW11-082813
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/28/13 09:37
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 14.04 | | ug/l | 1.000 | 0.1610 | 1 | 08/29/13 08:29 | 08/29/13 12:49 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-03
Client ID: PSP-SW12-082813
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/28/13 09:32
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.61 | | ug/l | 1.000 | 0.1610 | 1 | 08/29/13 08:29 | 08/29/13 12:53 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-04
 Client ID: PSP-SW13-082813
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/28/13 09:42
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.02 | | ug/l | 1.000 | 0.1610 | 1 | 08/29/13 08:29 | 08/29/13 12:56 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG632435-1 | | | | | | | | | | |
| Arsenic, Total | 0.9120 | J | ug/l | 1.000 | 0.1610 | 1 | 08/29/13 08:29 | 08/29/13 13:18 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG632435-2 | | | | | | | | |
| Arsenic, Total | 99 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632435-4 QC Sample: L1316789-01 Client ID: PSP-SW10-082813 | | | | | | | | | | | | |
| Arsenic, Total | 12.27 | 120 | 135.5 | 103 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632435-3 QC Sample: L1316789-01 Client ID: PSP-SW10-082813 | | | | | | |
| Arsenic, Total | 12.27 | 11.85 | ug/l | 3 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316789-01A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316789-02A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316789-03A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1316789-04A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



CHAIN OF CUSTODY

PAGE _____ OF _____

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Dexens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 HR 8/29/13

Date Rec'd in Lab: 8/29/13

ALPHA Job #: L1316789

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540

Email: RLeary@sovcon.com

Additional Project Information:

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler Initials | VOC: | SVOC: | METAL | METAL | EPH: L | VPH: L | PCB | TPH: L | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|-----------|------------|--|---------------|------------------|------|-------|-------|-------|--------|--------|-----|--------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|--------------------------------|-----------|------------|--|---------------|------------------|------|-------|-------|-------|--------|--------|-----|--------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Container Type

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₅
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

[Signature]
[Signature]

8/28/13 1510
8/28/13
8/28/13 1915

Epi [Signature]
[Signature]
Archard Scott

8/28/13 1510
8/28/13 1615
8/28/13 1715

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316891 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/30/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316891-01 | PSP-SW10-082913 | PLOW SHOP POND | 08/29/13 09:03 |
| L1316891-02 | PSP-SW11-082913 | PLOW SHOP POND | 08/29/13 09:42 |
| L1316891-03 | PSP-SW12-082913 | PLOW SHOP POND | 08/29/13 09:37 |
| L1316891-04 | PSP-SW13-082913 | PLOW SHOP POND | 08/29/13 09:33 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The WG632726-1 Method Blank, associated with L1316891-01 through -04, has a concentration $> \frac{1}{2}$ RL and $< \text{RL}$ and "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations are $> \frac{1}{2}$ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 08/30/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-01
 Client ID: PSP-SW10-082913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/29/13 09:03
 Date Received: 08/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 14.47 | | ug/l | 0.5000 | 0.1610 | 1 | 08/30/13 07:07 | 08/30/13 11:13 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-02
 Client ID: PSP-SW11-082913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/29/13 09:42
 Date Received: 08/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.73 | | ug/l | 0.5000 | 0.1610 | 1 | 08/30/13 07:07 | 08/30/13 11:28 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-03
 Client ID: PSP-SW12-082913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/29/13 09:37
 Date Received: 08/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.16 | | ug/l | 0.5000 | 0.1610 | 1 | 08/30/13 07:07 | 08/30/13 11:32 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-04
 Client ID: PSP-SW13-082913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/29/13 09:33
 Date Received: 08/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.69 | | ug/l | 0.5000 | 0.1610 | 1 | 08/30/13 07:07 | 08/30/13 11:36 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG632726-1 | | | | | | | | | | |
| Arsenic, Total | 0.3060 | J | ug/l | 0.5000 | 0.1610 | 1 | 08/30/13 07:07 | 08/30/13 11:02 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG632726-2 | | | | | | | | |
| Arsenic, Total | 99 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632726-4 QC Sample: L1316891-01 Client ID: PSP-SW10-082913 | | | | | | | | | | | | |
| Arsenic, Total | 14.47 | 120 | 132.8 | 99 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632726-3 QC Sample: L1316891-01 Client ID: PSP-SW10-082913 | | | | | | |
| Arsenic, Total | 14.47 | 15.11 | ug/l | 4 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316891-01A | Plastic 250ml HNO3 preserved | A | <2 | 4 | Y | Absent | DOD-AS-6020T(180) |
| L1316891-02A | Plastic 250ml HNO3 preserved | A | <2 | 4 | Y | Absent | DOD-AS-6020T(180) |
| L1316891-03A | Plastic 250ml HNO3 preserved | A | <2 | 4 | Y | Absent | DOD-AS-6020T(180) |
| L1316891-04A | Plastic 250ml HNO3 preserved | A | <2 | 4 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316977 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/03/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1316977-01 | PSP-SW10-083013 | PLOW SHOP POND | 08/30/13 09:58 |
| L1316977-02 | PSP-SW11-083013 | PLOW SHOP POND | 08/30/13 09:12 |
| L1316977-03 | PSP-SW12-083013 | PLOW SHOP POND | 08/30/13 09:06 |
| L1316977-04 | PSP-SW13-083013 | PLOW SHOP POND | 08/30/13 08:59 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Total Metals

The WG633222-1 Method Blank, associated with L1316977-01 through -04, has a concentration $> \frac{1}{2}$ RL and $< \text{RL}$ and is "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations are $> \frac{1}{2}$ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/03/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-01
 Client ID: PSP-SW10-083013
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/30/13 09:58
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 20.06 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 09:18 | 09/03/13 12:07 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-02
 Client ID: PSP-SW11-083013
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/30/13 09:12
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 14.49 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 09:18 | 09/03/13 12:22 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-03
Client ID: PSP-SW12-083013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/30/13 09:06
Date Received: 08/30/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.77 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 09:18 | 09/03/13 12:25 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-04
 Client ID: PSP-SW13-083013
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/30/13 08:59
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.22 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 09:18 | 09/03/13 12:29 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG633222-1 | | | | | | | | | | |
| Arsenic, Total | 0.4490 | J | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 09:18 | 09/03/13 12:00 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG633222-2 | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG633222-4 QC Sample: L1316977-01 Client ID: PSP-SW10-083013 | | | | | | | | | | | | |
| Arsenic, Total | 20.06 | 120 | 143.6 | 103 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG633222-3 QC Sample: L1316977-01 Client ID: PSP-SW10-083013 | | | | | | |
| Arsenic, Total | 20.06 | 21.25 | ug/l | 6 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1316977-01A | Plastic 250ml HNO3 preserved | A | <2 | 3.4 | Y | Absent | DOD-AS-6020T(180) |
| L1316977-02A | Plastic 250ml HNO3 preserved | A | <2 | 3.4 | Y | Absent | DOD-AS-6020T(180) |
| L1316977-03A | Plastic 250ml HNO3 preserved | A | <2 | 3.4 | Y | Absent | DOD-AS-6020T(180) |
| L1316977-04A | Plastic 250ml HNO3 preserved | A | <2 | 3.4 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



CHAIN OF CUSTODY

PAGE OF

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Project Information

Westborough, MA Mansfield, MA
TEL: 508-898-9220 TEL: 508-822-9300
FAX: 508-898-9193 FAX: 508-822-3288

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: 9/3/13 Time: 24 HR

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab

8/30/13

ALPHA Job #:

L1316977

Report Information Data Deliverables

☐ FAX☒ EMAIL☒ ADEX☐ Add'l Deliverables

Billing Information

☐ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes☒ No

Are MCP Analytical Methods Required?

☐ Yes☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID
(Lab Use Only)

Sample ID

Collection

Date

Time

Sample
MatrixSampler's
Initials

| | | | | | |
|------------|-----------------|---------|------|----|-----|
| 16977 - 01 | PSP-SW10-083013 | 8/30/13 | 0958 | SW | LMS |
| - 02 | PSP-SW11-083013 | ↓ | 0912 | ↓ | ↓ |
| - 03 | PSP-SW12-083013 | ↓ | 0906 | ↓ | ↓ |
| - 04 | PSP-SW13-083013 | ↓ | 0859 | ↓ | ↓ |

PLEASE ANSWER QUESTIONS ABOVE!

Container Type

Preservative

IS YOUR PROJECT
MA MCP or CT RCP?

FORM NO: 01-01(1)
(rev. 5-JAN-12)

Relinquished By:

Date/Time

Received By:

Date/Time

[Signature]
E. J. [unclear]
T. Hurdellon

8/30/13 1200
8/30/13 1340
8/30/13 1815

[Signature]
T. Hurdellon
[Signature]

8/30/13 1200
8/30/13 1340
8/30/13 1815

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317068 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/04/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1317068-01 | PSP-SW11-090313 | PLOW SHOP POND | 09/03/13 10:22 |
| L1317068-02 | PSP-SW10-090313 | PLOW SHOP POND | 09/03/13 09:34 |
| L1317068-03 | PSP-SW12-090313 | PLOW SHOP POND | 09/03/13 10:16 |
| L1317068-04 | PSP-SW13-090313 | PLOW SHOP POND | 09/03/13 10:07 |
| L1317068-05 | FD-090313 | PLOW SHOP POND | 09/03/13 10:09 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/04/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-01
 Client ID: PSP-SW11-090313
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/03/13 10:22
 Date Received: 09/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 16.91 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 15:03 | 09/03/13 18:46 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-02
Client ID: PSP-SW10-090313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/03/13 09:34
Date Received: 09/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 14.81 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 15:03 | 09/03/13 19:30 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-03
Client ID: PSP-SW12-090313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/03/13 10:16
Date Received: 09/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.95 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 15:03 | 09/03/13 19:37 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-04
Client ID: PSP-SW13-090313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/03/13 10:07
Date Received: 09/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.76 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 15:03 | 09/03/13 19:43 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-05
Client ID: FD-090313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/03/13 10:09
Date Received: 09/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 14.67 | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 15:03 | 09/03/13 19:50 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG633374-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 09/03/13 15:03 | 09/03/13 18:34 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG633374-2 | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG633374-3 WG633374-4 QC Sample: L1317068-01 Client ID: PSP-SW11-090313 | | | | | | | | | | | | |
| Arsenic, Total | 16.91 | 120 | 146.4 | 108 | | 154.7 | 115 | | 80-120 | 6 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1317068-01A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1317068-01B | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1317068-01C | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1317068-02A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1317068-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1317068-04A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |
| L1317068-05A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317270 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/06/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1317270-01 | PSP-SW10-090513 | PLOW SHOP POND | 09/05/13 09:18 |
| L1317270-02 | PSP-SW11-090513 | PLOW SHOP POND | 09/05/13 09:52 |
| L1317270-03 | PSP-SW12-090513 | PLOW SHOP POND | 09/05/13 09:47 |
| L1317270-04 | PSP-SW13-090513 | PLOW SHOP POND | 09/05/13 09:43 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/06/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-01
Client ID: PSP-SW10-090513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/05/13 09:18
Date Received: 09/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.86 | | ug/l | 0.5000 | 0.1610 | 1 | 09/06/13 08:14 | 09/06/13 12:04 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-02
Client ID: PSP-SW11-090513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/05/13 09:52
Date Received: 09/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.94 | | ug/l | 0.5000 | 0.1610 | 1 | 09/06/13 08:14 | 09/06/13 12:20 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-03
Client ID: PSP-SW12-090513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/05/13 09:47
Date Received: 09/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.41 | | ug/l | 0.5000 | 0.1610 | 1 | 09/06/13 08:14 | 09/06/13 12:24 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-04
 Client ID: PSP-SW13-090513
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/05/13 09:43
 Date Received: 09/05/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.46 | | ug/l | 0.5000 | 0.1610 | 1 | 09/06/13 08:14 | 09/06/13 12:28 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG634154-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 09/06/13 08:14 | 09/06/13 11:53 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG634154-2 | | | | | | | | |
| Arsenic, Total | 99 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634154-4 QC Sample: L1317270-01 Client ID: PSP-SW10-090513 | | | | | | | | | | | | |
| Arsenic, Total | 12.86 | 120 | 136.3 | 103 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634154-3 QC Sample: L1317270-01 Client ID: PSP-SW10-090513 | | | | | | |
| Arsenic, Total | 12.86 | 13.15 | ug/l | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1317270-01A | Plastic 250ml HNO3 preserved | A | <2 | 5.2 | Y | Absent | DOD-AS-6020T(180) |
| L1317270-02A | Plastic 250ml HNO3 preserved | A | <2 | 5.2 | Y | Absent | DOD-AS-6020T(180) |
| L1317270-03A | Plastic 250ml HNO3 preserved | A | <2 | 5.2 | Y | Absent | DOD-AS-6020T(180) |
| L1317270-04A | Plastic 250ml HNO3 preserved | A | <2 | 5.2 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

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GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



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Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317443 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/09/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1317443-01 | PSP-SW10-090613 | PLOW SHOP POND | 09/06/13 09:10 |
| L1317443-02 | PSP-SW11-090613 | PLOW SHOP POND | 09/06/13 09:31 |
| L1317443-03 | PSP-SW12-090613 | PLOW SHOP POND | 09/06/13 09:36 |
| L1317443-04 | PSP-SW13-090613 | PLOW SHOP POND | 09/06/13 09:43 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Sample Receipt

L1317443-03 was received above the appropriate pH for the Metals analysis. The laboratory added additional HNO₃ to a pH <2.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/09/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-01
 Client ID: PSP-SW10-090613
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/06/13 09:10
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.33 | | ug/l | 0.5000 | 0.1610 | 1 | 09/07/13 08:45 | 09/07/13 16:45 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-02
 Client ID: PSP-SW11-090613
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/06/13 09:31
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.79 | | ug/l | 0.5000 | 0.1610 | 1 | 09/07/13 08:45 | 09/07/13 17:01 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-03
Client ID: PSP-SW12-090613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 09:36
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.17 | | ug/l | 0.5000 | 0.1610 | 1 | 09/07/13 08:45 | 09/07/13 17:05 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-04
Client ID: PSP-SW13-090613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 09:43
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 12.22 | | ug/l | 0.5000 | 0.1610 | 1 | 09/07/13 08:45 | 09/07/13 17:17 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG634434-1 | | | | | | | | | | |
| Arsenic, Total | 0.1990 | J | ug/l | 0.5000 | 0.1610 | 1 | 09/07/13 08:45 | 09/07/13 16:33 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG634434-2 | | | | | | | | |
| Arsenic, Total | 97 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634434-4 QC Sample: L1317443-01 Client ID: PSP-SW10-090613 | | | | | | | | | | | | |
| Arsenic, Total | 13.33 | 120 | 140.1 | 106 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634434-3 QC Sample: L1317443-01 Client ID: PSP-SW10-090613 | | | | | | |
| Arsenic, Total | 13.33 | 12.96 | ug/l | 3 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1317443-01A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1317443-02A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1317443-03A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |
| L1317443-04A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 19 of 22 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317463 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/10/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------------|----------------------------|---------------------------------|
| L1317463-01 | SA-71-SD-05-002-090613 | PLOW SHOP POND | 09/06/13 11:20 |
| L1317463-02 | SA-71-SD-04-002-090613 | PLOW SHOP POND | 09/06/13 11:25 |
| L1317463-03 | SA-71-SD-06-002-090613 | PLOW SHOP POND | 09/06/13 12:00 |
| L1317463-04 | FD-090613-01 | PLOW SHOP POND | 09/06/13 11:20 |
| L1317463-05 | EB-090613-01 | PLOW SHOP POND | 09/06/13 12:20 |
| L1317463-06 | SA-71-SD-15-002-090613 | PLOW SHOP POND | 09/06/13 14:40 |
| L1317463-07 | SA-71-SD-14-002-090613 | PLOW SHOP POND | 09/06/13 15:10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317463-05, has concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG634625-4/-5 MS/MSD recoveries, performed on L1317463-01, are below the acceptance criteria for

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1317463
Report Date: 09/10/13

Case Narrative (continued)

antimony (65%/46%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1317463-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/10/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
 Client ID: SA-71-SD-05-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 14%

Date Collected: 09/06/13 11:20
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.93 | Q | mg/kg | 0.201 | 0.036 | 2 | 09/09/13 11:00 | 09/10/13 10:09 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
 Client ID: SA-71-SD-04-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 09/06/13 11:25
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 7.81 | Q | mg/kg | 0.268 | 0.047 | 2 | 09/09/13 11:00 | 09/10/13 10:15 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
 Client ID: SA-71-SD-06-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 12%

Date Collected: 09/06/13 12:00
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 3.08 | Q | mg/kg | 0.217 | 0.038 | 2 | 09/09/13 11:00 | 09/10/13 10:15 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
 Client ID: FD-090613-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 14%

Date Collected: 09/06/13 11:20
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.10 | Q | mg/kg | 0.186 | 0.033 | 2 | 09/09/13 11:00 | 09/10/13 10:16 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-05
Client ID: EB-090613-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 12:20
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1054 | JQ | ug/l | 0.5000 | 0.0260 | 1 | 09/09/13 11:00 | 09/10/13 10:43 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
 Client ID: SA-71-SD-15-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 15%

Date Collected: 09/06/13 14:40
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.89 | Q | mg/kg | 0.181 | 0.032 | 2 | 09/09/13 11:00 | 09/10/13 10:17 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
 Client ID: SA-71-SD-14-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 17%

Date Collected: 09/06/13 15:10
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 7.52 | Q | mg/kg | 0.168 | 0.030 | 2 | 09/09/13 11:00 | 09/10/13 10:18 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-04,06-07 Batch: WG634625-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 09/09/13 11:00 | 09/10/13 10:07 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|---------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 05 Batch: WG634627-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.00003 | 1 | 09/09/13 11:00 | 09/10/13 10:41 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 Batch: WG634625-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG634627-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|

Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-4 WG634625-5 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613

| | | | | | | | | | | | | |
|-----------------|------|------|------|----|---|------|----|---|--------|----|--|----|
| Antimony, Total | 6.93 | 8.14 | 12.2 | 65 | Q | 10.7 | 46 | Q | 80-120 | 13 | | 20 |
|-----------------|------|------|------|----|---|------|----|---|--------|----|--|----|

Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-4 QC Sample: L1317463-05 Client ID: EB-090613-01

| | | | | | | | | | | | | |
|-----------------|---------|----|------|-----|--|---|---|--|--------|---|--|----|
| Antimony, Total | 0.1054J | 40 | 44.3 | 111 | | - | - | | 80-120 | - | | 20 |
|-----------------|---------|----|------|-----|--|---|---|--|--------|---|--|----|

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-3 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613 | | | | | | |
| Antimony, Total | 6.93 | 7.07 | mg/kg | 2 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-3 QC Sample: L1317463-05 Client ID: EB-090613-01 | | | | | | |
| Antimony, Total | 0.1054J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
Client ID: SA-71-SD-05-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 13.5 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
Client ID: SA-71-SD-04-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:25
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.9 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
Client ID: SA-71-SD-06-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 12:00
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 12.1 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
Client ID: FD-090613-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 13.9 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
Client ID: SA-71-SD-15-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 14:40
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 15.2 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
Client ID: SA-71-SD-14-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 15:10
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 16.7 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634553-1 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613 | | | | | | |
| Solids, Total | 13.5 | 13.7 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317463-01A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-01B | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-01C | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-02A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-03A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-04A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-05A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | A2-DOD-SB-6020T(180) |
| L1317463-06A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-07A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 80011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 34 of 37 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

[illegible]



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317701 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/11/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1317701-01 | PSP-SW10-091013 | PLOW SHOP POND | 09/10/13 09:45 |
| L1317701-02 | PSP-SW11-091013 | PLOW SHOP POND | 09/10/13 10:31 |
| L1317701-03 | PSP-SW12-091013 | PLOW SHOP POND | 09/10/13 10:26 |
| L1317701-04 | PSP-SW13-091013 | PLOW SHOP POND | 09/10/13 10:19 |
| L1317701-05 | FD-091013 | PLOW SHOP POND | 09/10/13 10:18 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Total Metals

The WG635253-1 Method Blank, associated with L1317701-01 through -05, has a concentration $> \frac{1}{2}$ RL and $< \frac{1}{2}$ RL and is "J" qualified for arsenic. The associated field sample results are "B" qualified if the concentrations are $> \frac{1}{2}$ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/11/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-01
Client ID: PSP-SW10-091013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 09:45
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 13.23 | | ug/l | 0.5000 | 0.1610 | 1 | 09/11/13 10:28 | 09/11/13 13:48 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-02
 Client ID: PSP-SW11-091013
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/10/13 10:31
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 16.77 | | ug/l | 0.5000 | 0.1610 | 1 | 09/11/13 10:28 | 09/11/13 13:34 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-03
Client ID: PSP-SW12-091013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 10:26
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 16.13 | | ug/l | 0.5000 | 0.1610 | 1 | 09/11/13 10:28 | 09/11/13 13:52 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-04
 Client ID: PSP-SW13-091013
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/10/13 10:19
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.22 | | ug/l | 0.5000 | 0.1610 | 1 | 09/11/13 10:28 | 09/11/13 13:56 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-05
 Client ID: FD-091013
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/10/13 10:18
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.66 | | ug/l | 0.5000 | 0.1610 | 1 | 09/11/13 10:28 | 09/11/13 14:10 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG635253-1 | | | | | | | | | | |
| Arsenic, Total | 0.4920 | J | ug/l | 0.5000 | 0.1610 | 1 | 09/11/13 10:28 | 09/11/13 13:59 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG635253-2 | | | | | | | | |
| Arsenic, Total | 98 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG635253-3 WG635253-4 QC Sample: L1317701-02 Client ID: PSP-SW11-091013 | | | | | | | | | | | | |
| Arsenic, Total | 16.77 | 120 | 144.1 | 106 | | 141.9 | 104 | | 80-120 | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1317701-01A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1317701-02A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1317701-02B | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1317701-02C | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1317701-03A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1317701-04A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1317701-05A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



CHAIN OF CUSTODY

PAGE OF

Project Information

Westborough, MA Mansfield, MA
TEL: 508-898-9220 TEL: 508-822-9300
FAX: 508-898-9193 FAX: 508-822-3288

Project Name: Devens

Client Information

Client: Sovereign Consulting Inc.

Project Location: Plow Shop Pond

Address: 4 Open Square Way, Ste. 307

Project #: AC001.005

Holyoke, MA 01040

Project Manager: Rachel Leary

Phone: 413-540-0650

ALPHA Quote #:

Fax: 413-540-0656

Turn-Around Time

Email: RLeary@sovcon.com

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)☐ These samples have been Previously analyzed by Alpha

Due Date: 9/13/13 Time: 11 24 HR

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 9/10/13

ALPHA Job #: L1317701-RS

Report Information Data Deliverables

☐ FAX☒ EMAIL☒ ADEx☐ Add'l Deliverables

Billing Information

☐ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes☒ No

Are MCP Analytical Methods Required?

☐ Yes☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID
(Lab Use Only)

Sample ID

Collection

Date

Time

Sample Matrix

Sampler's Initials

PSP-SW10-091013

9/10/13

0945

SW

LMS

PSP-SW11-091013

1031

PSP-SW11-091013-MS

1031

PSP-SW11-091013-MSD

1031

PSP-SW12-091013

1026

PSP-SW13-091013

1019

FD-091013

1018

PLEASE ANSWER QUESTIONS ABOVE!

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(1)
(rev. 5-JAN-12)

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318506 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/20/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1318506-01 | PSP-SW-10-091913 | PLOW SHOP POND | 09/19/13 09:18 |
| L1318506-02 | PSP-SW-11-091913 | PLOW SHOP POND | 09/19/13 09:58 |
| L1318506-03 | PSP-SW-12-091913 | PLOW SHOP POND | 09/19/13 09:51 |
| L1318506-04 | PSP-SW-13-091913 | PLOW SHOP POND | 09/19/13 09:44 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Sample Receipt

L1318506-01 was received above the appropriate pH for the Total Metals analysis. The laboratory added additional HNO₃ to a pH <2.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/20/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-01
Client ID: PSP-SW-10-091913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 09:18
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 9.377 | | ug/l | 0.5000 | 0.1610 | 1 | 09/20/13 08:06 | 09/20/13 12:26 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-02
 Client ID: PSP-SW-11-091913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/19/13 09:58
 Date Received: 09/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 16.06 | | ug/l | 0.5000 | 0.1610 | 1 | 09/20/13 08:06 | 09/20/13 12:41 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-03
Client ID: PSP-SW-12-091913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 09:51
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.90 | | ug/l | 0.5000 | 0.1610 | 1 | 09/20/13 08:06 | 09/20/13 12:52 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-04
 Client ID: PSP-SW-13-091913
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/19/13 09:44
 Date Received: 09/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 15.53 | | ug/l | 0.5000 | 0.1610 | 1 | 09/20/13 08:06 | 09/20/13 12:55 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG637671-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.1610 | 1 | 09/20/13 08:06 | 09/20/13 12:16 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG637671-2 | | | | | | | | |
| Arsenic, Total | 98 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG637671-4 QC Sample: L1318506-01 Client ID: PSP-SW-10-091913 | | | | | | | | | | | | |
| Arsenic, Total | 9.377 | 120 | 133.3 | 103 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG637671-3 QC Sample: L1318506-01 Client ID: PSP-SW-10-091913 | | | | | | |
| Arsenic, Total | 9.377 | 9.171 | ug/l | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|----|---------------|------|--------|-------------------|
| L1318506-01A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1318506-02A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1318506-03A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |
| L1318506-04A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/19/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Flow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RCFD

On-Site Responsible Person (if applicable): Jim Heneburg, John Curran

Notice of Construction Filed Yes No (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Denotation/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: 0 inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsolling Bench Terracing Clearwater Diversion Other straw wattles around drainage riprap + dam pumps
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate at dam to lessen water impact
Polyacrylamide (PAM) Sodding Hydro-seeding

☒ Yes No ☒ NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No ☒ NA Are previously stabilized areas being maintained if applicable?
☒ Yes No ☒ NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No ☒ NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No ☒ NA Are Sediment Control practices located properly?
☒ Yes No ☒ NA Are Sediment Control practices installed properly?
☒ Yes No ☒ NA Are all soil stockpiles adequately contained?
☒ Yes No ☒ NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculates Other silt fence around drainage riprap at RR Roundhouse

☒ Yes No Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
If yes, have them removed unless specified on the plans and check for permits.
☒ Yes ☒ No Is there evidence of work outside the limits of the approved plan?
☒ Yes ☒ No Is construction being de-watered property if applicable?

Are there off-site impacts? Yes ☒ No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action Type/Location of E&S Control Repair Needed Action Taken
 Unsafe Condition
 Corrective Actions --> Required Actions:
 Stop Work Order

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
 Yes No Are there any areas of active erosion evident?
 Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR
 have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|------------------------------|--|-----------------------------------|--|-------|
| 1 straw wattles @ dam | N | N | | |
| 2 silt fence @ SATI swale | N | N | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/21/13 INSPECTOR NAME: lms QUALIFICATIONS: _____

PROJECT DATA

Project Name: Flow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henebury, John Curran

Notice of Construction Filed Yes No _____ (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Dentention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: 0 inches
Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

No new EP measures

Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other

No new SC measures

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No NA Is there evidence of work outside the limits of the approved plan?
Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

Waterbody None Minimal Needs Attention Severe
Roadway None Minimal Needs Attention Severe
Adjacent Property None Minimal Needs Attention Severe
Air/Dust None Minimal Needs Attention Severe
Storm Sewer None Minimal Needs Attention Severe

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR
have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|------------------------------|--|-----------------------------------|--|-------|
| 1 Stray wattles @ dam | N | N | | |
| 2 silt fence @ SATI swale | N | N | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/22/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henebury, John Curran

Notice of Construction Filed Yes No _____ (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Dentation/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: 0 inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsailing | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | <u>No new EP measures</u> |
| Temporary Stabilization | Berms | (Riprap or Aggregate) | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

☒ Yes No ☒ NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No ☒ NA Are previously stabilized areas being maintained if applicable?
☒ Yes No ☒ NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No ☒ NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes ☒ No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|----------------------------|---------------------------|
| Sediment Pond | Vegetated Filter Strips | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculants | Other |
| | | <u>No new SC measures</u> |

☒ Yes ☒ No Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No NA Is there evidence of work outside the limits of the approved plan?
☒ Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes ☒ No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes ☒ No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|------------------------------|--|-----------------------------------|--|-------|
| 1 Stray wattles @ dam | N | N | | |
| 2 silt fence @ SA71 swale | N | N | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/23/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Jim Hinchbury, John Curran

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Dentention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Yes No Recorded rainfall since previous inspection: 0 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other
Ground Cover Plants Mulching RECRs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

No new EP measures

Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other

No new SC measures

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No NA Is there evidence of work outside the limits of the approved plan?
Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

Waterbody None Minimal Needs Attention Severe
Roadway None Minimal Needs Attention Severe
Adjacent Property None Minimal Needs Attention Severe
Air/Dust None Minimal Needs Attention Severe
Storm Sewer None Minimal Needs Attention Severe

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions.

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|------------------------------|--|-----------------------------------|--|-------|
| 1 straw wattles @ dam | N | N | | |
| 2 silt fence @ SAT 1 swale | N | N | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/26/13 INSPECTOR NAME: Lms QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henebury, John Curran

Notice of Construction Filed Yes No (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: 0 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

☒ Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculates Other

☒ Yes No NO Photo Documentation
☒ Yes No NO Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No NO Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No NO If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No NA Is there evidence of work outside the limits of the approved plan?
Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes NO If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes No Photo Documentation

added: wattles w/in SATI exc. area,
silt fence extending up sandy
road to landfill

added: silt fence extending up sandy road to landfill

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action Type/Location of E&S Control Repair Needed Action Taken
 Unsafe Condition
 Corrective Actions --> Required Actions:
 Stop Work Order

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
 Yes No Are there any areas of active erosion evident?
 Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR
 have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------------|
| 1 wattles in SATI exc. area | N | N | | added today |
| 2 silt fence on ATV road | N | N | | added today |
| 3 wattles at pump loc | N | N | | |
| 4 silt fence at SATI drainage swale | N | N | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

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508-339-3200

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/27/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Flow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henchbury, John Curran

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/13/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Dentention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: 0 inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsolling Bench Terracing Clearwater Diversion Other
Ground Cover Plants Mulching REGRs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

added: wattles continuing around entire exc area at SATI

☒ Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other

No new SC added

☒ Yes No No Photo Documentation
☒ Yes No No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No NA Is there evidence of work outside the limits of the approved plan?
Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes ☒ No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes ☒ No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action Type/Location of E&S Control Repair Needed Action Taken
 Unsafe Condition
 Corrective Actions --> Required Actions:
 Stop Work Order

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
 Yes No Are there any areas of active erosion evident?
 Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR
 have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------|
| 1 Wattles in SATI exc area | N | N | | |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump loca. | N | N | | |
| 4 silt fence at SATI drainage swale | N | N | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 7/28/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henchburg, John Curran

Notice of Construction Filed Yes No _____ (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: 4 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsoiling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | <u>No new EP added</u> |
| Temporary Stabilization | Berms | Riprap or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

☒ Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|----------------------------|----------------------|
| Sediment Pond | Vegetated Filter Strips | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculants | Other |

Added: silt fencing along upper end of dirt ATV road leading to landfill

☒ Yes No Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No Is there evidence of work outside the limits of the approved plan?
☒ Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

Compliance Date:

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: (date)

Yes No Photo Documentation

NOTES

18" pipe installed @ drainage swale beneath ATV road - will monitor for erosion/road subsidence if heavy rains occur.

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------|
| 1 wattles in SATI exc. area | N | N | | |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at SATI drainage swale | N | N | | |
| 5 | | | | |
| 6 | | | | |
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| 9 | | | | |
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/29/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henebury, John Curran

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: < 1 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsoiling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECRs (Rolled Erosion Control Products) | <u>No new EP added</u> |
| Temporary Stabilization | Berms | Riprap or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

☒ Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained? on pond banks
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|--------------------------------|----------------------|
| Sediment Pond | <u>Vegetated Filter Strips</u> | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculants | Other |

☒ Yes No Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No NA Is there evidence of work outside the limits of the approved plan?
☒ Yes No NA Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action Type/Location of E&S Control Repair Needed Action Taken
 Unsafe Condition
 Corrective Actions
 Stop Work Order
 --> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
 Yes No Are there any areas of active erosion evident?
 Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR
 have equivalent measures such as mulches, RECPS, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------|
| 1 Wattles in SATI exc area | N | N | | |
| 2 silt fence on ATV road | N | N | | |
| 3 Wattles at pump location | N | N | | |
| 4 silt fence at SATI drainage swale | N | N | | |
| 5 | | | | |
| 6 | | | | |
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| 10 | | | | |

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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/30/13 INSPECTOR NAME: CMJ QUALIFICATIONS: _____

PROJECT DATA

Project Name: PLOW SHOP POND Project ID: AC001-005 Permit # _____

Contractor Name: RC&B

On-Site Responsible Person (if applicable): John Curran, Jim Heneburg

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Yes No Recorded rainfall since previous inspection: 0 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsailing Bench Terracing Clearwater Diversion Other No new EP measures
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

Yes No NA Are drainage conveyances stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained? sediment at stockpile area @ landfill
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other No new SC measures
Yes No Photo Documentation Silt fence at landfill stockpile area
Yes No Are any additional Erosion Prevention or Sediment Control Practices required? Designated for Railroad sediments
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No NA Is there evidence of work outside the limits of the approved plan?
Is construction being de-watered properly if applicable?
Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.
Waterbody None Minimal Needs Attention Severe
Roadway None Minimal Needs Attention Severe
Adjacent Property None Minimal Needs Attention Severe
Air/Dust None Minimal Needs Attention Severe
Storm Sewer None Minimal Needs Attention Severe
Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|--------------------------------------|--|-----------------------------------|--|-------|
| 1 wattles in SATI exc area | N | N | | |
| 2 silt fence on ATV Road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at SATI drainage swales | N | N | | |
| 5 silt fence at stockpile area | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

Note: large pump use discontinued, new smaller pump installed outside of EC area



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/3/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC #1

On-Site Responsible Person (if applicable): John Curran/Aaron Lachance/Jim Heneburg

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Yes No Recorded rainfall since previous inspection: 0 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other No new EP measures
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained? at stockpile area on landfill
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other No new SC measures

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No Is there evidence of work outside the limits of the approved plan?
Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

Waterbody None Minimal Needs Attention Severe
Roadway None Minimal Needs Attention Severe
Adjacent Property None Minimal Needs Attention Severe
Air/Dust None Minimal Needs Attention Severe
Storm Sewer None Minimal Needs Attention Severe

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

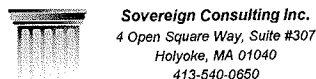
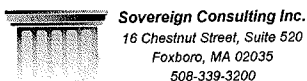
Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------|
| 1 wattles in SATI exc area | N | N | | |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at SATI drainage swale | N | N | | |
| 5 silt fence at soil stockpile area | | | | |
| 6 | | | | |
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/4/13 INSPECTOR NAME: Lms QUALIFICATIONS: _____

PROJECT DATA

Project Name: Flow Shop Pond Project ID: AC001-005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed Yes No (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: 0 inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other No new EP measures
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

☒ Yes No NA Are drainage conveyances stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculates Other No new SC measures

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No NA Is there evidence of work outside the limits of the approved plan?
☒ Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| Waterbody | Roadway | Adjacent Property | Air/Dust | Storm Sewer |
|-----------------|-----------------|-------------------|-----------------|-----------------|
| None | None | None | None | None |
| Minimal | Minimal | Minimal | Minimal | Minimal |
| Needs Attention | Needs Attention | Needs Attention | Needs Attention | Needs Attention |
| Severe | Severe | Severe | Severe | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES**CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS**

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------|
| 1 Wattle in SATI exc area | N | N | | |
| 2 Silt fence on Atv road | N | N | | |
| 3 Wattle at pump location | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 Silt fence at Soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/10/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Arnon Lachance

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: 2.1 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other No new EP measures
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

☒ Yes No NA Are drainage conveyances stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other No new SC measures

☒ Yes No Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No NA Is there evidence of work outside the limits of the approved plan?
Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------|
| 1 wattles in SATI exc area | N | N | | |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/11/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001005 Permit # _____

Contractor Name: _____

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 9-14-13 (date)
Pre Construction Conference Yes No 9-1-13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Dentionment/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: 2.1 inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Grass or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

☒ Yes No NA Are drainage conveyances stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes ☒ No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other No new SC measures

Yes ☒ No Photo Documentation
Yes ☒ No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes ☒ No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes ☒ No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes ☒ No Is there evidence of work outside the limits of the approved plan?
Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes ☒ No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes ☒ No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|---------------------------|
| 1 waffles in SA71 exc area | N | N | | SA71 and RC staging areas |
| 2 silt fence on ATV road | N | N | | |
| 3 waffles at pump location | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/12/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Parcel Project ID: AC001.005 Permit # _____

Contractor Name: _____

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed Yes No (date)
Pre Construction Inspection Yes No 8-14-13 (date)
Pre Construction Conference Yes No 8-1-13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Dentation/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: _____ inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsolling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | <u>No new EP measures</u> |
| Temporary Stabilization | Berms | <u>Riprap</u> or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

☒ Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes ☒ No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No ☒ NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes ☒ No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|--------------------------------|----------------------|
| Sediment Pond | <u>Vegetated Filter Strips</u> | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculates | Other |

Yes ☒ No Photo Documentation
Yes ☒ No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes ☒ No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes ☒ No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No NA Is there evidence of work outside the limits of the approved plan?
☒ Yes No NA Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes ☒ No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes ☒ No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

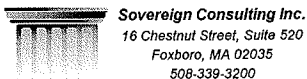
Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-------|
| 1 Wattles in S&H Exc area | N | N | | |
| 2 Silt fence on ATV road | N | N | | |
| 3 Wattles at pump location | N | N | | |
| 4 Silt fence at drainage swale | N | N | | |
| 5 Silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/13/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: How Shop Pond Project ID: AC001-05A Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed Yes No _____ (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Yes No Recorded rainfall since previous inspection: ~4 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places? see notes
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas? see notes

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsolling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | |
| Temporary Stabilization | Berms | <u>Riprap</u> or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable? see notes
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly? see notes
Yes No NA Are Sediment Control practices installed properly? see notes
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas? see notes

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|----------------------|----------------------------|----------------------|
| Sediment Pond | Vegetated Filter Strips | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| <u>Sediment Trap</u> | Polyacrylamide Flocculates | Other |

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required? see notes
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

NA No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No Is there evidence of work outside the limits of the approved plan?
Yes No NA Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes *ongoing* No

NA

Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

See notes below

Compliance Date: _____

FINAL STABILIZATION

Yes

No

Have all land disturbing activities at the site ceased?

Yes

No

Are there any areas of active erosion evident?

Yes

No

Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes

No

Photo Documentation

NOTES

Severe storms during previous night caused extensive flooding & erosion.

Correction of Erosion Control & Sediment Control measures needed including:

- Repositioning of silt fence at culvert under ATV road. Currently silt fence is pulled above ground surface and ^{has} entered into culvert due to force of water runoff.
- Regrading/filling of roadsides on ATV road. Currently large areas on edges of road have washed out and down riprap swale. Road subsidence needs correcting.
- Maintenance of riprap sedimentation area w/in SATI. Portions of this area have washed out and heavy sedimentation is present at riprap swale outfall.
- Repositioning of straw wattles w/in SATI exc. area. Currently wattles are separated & ineffective.

These measures being corrected on 9/13/13 prior to any further site work.

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|---|
| 1 wattles in SATI exc area | Y | Y | 9/13/13 | See above |
| 2 silt fence on ATV road | Y | Y | 9/13/13 | see above |
| 3 wattles at pump location | N | N | | intact, no issues at dam |
| 4 silt fence at drainage swale | Y | Y | 9/13/13 | silt fence ok but swale with outfall will need maintenance |
| 5 silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/16/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001-005 Permit # _____

Contractor Name: RC + D

On-Site Responsible Person (if applicable): Aaron LaChance

Notice of Construction Filed Yes No (date)
Pre Construction Inspection Yes No 8-14-13 (date)
Pre Construction Conference Yes No 8-1-13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: _____ inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes NO Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsailing | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | |
| Temporary Stabilization | Berms | <u>Riprap</u> or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

Yes NO NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
Yes NO NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes NO Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
Yes NO NA Are Sediment Control practices installed properly? see notes
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|----------------------|----------------------------|----------------------|
| Sediment Pond | Vegetated Filter Strips | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| <u>Sediment Trap</u> | Polyacrylamide Flocculants | Other |

Yes NO Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below see notes

OFFSITE IMPACT

Yes NO Are there BMPs installed in streams or active channels?
If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No Is there evidence of work outside the limits of the approved plan? test pits/trenches
Yes No NA Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes NO If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes No Photo Documentation

CORRECTIVE ACTION

Yes *in process* No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions: *see below*

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

- ATV road was improved following being washed-out the night of 9/12/13.
↳ silt fence in this area still needs repair in certain areas.
- Drainage grate entrance to Plover shop Pond is washed out, unclear as if the ATV road impacted the grate or if it was natural.
- Straw wattles within SATI are taking on water and seem to be sinking. The area in the west became disconnected, repairs should be conducted.

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|--|--|-----------------------------------|--|--------------|
| ¹ wattles in SATI exc area | Y | Y | 9/13/13 | |
| ² silt fence on ATV road | Y | Y | 9/13/13 | |
| ³ wattles at pump location | N | N | — | |
| ⁴ silt fence at drainage grate | Y | Y | 9/13/13 | outfall only |
| ⁵ silt fence at soil stockpile area | N | N | — | |
| ⁶ | | | | |
| ⁷ | | | | |
| ⁸ | | | | |
| ⁹ | | | | |
| ¹⁰ | | | | |



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/17/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001-005 Permit # _____
Contractor Name: RC & D
On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed Yes No _____ (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Yes No Recorded rainfall since previous inspection: _____ inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsoiling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | |
| Temporary Stabilization | Berms | <u>Riprap</u> or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

Yes No NA Are drainage conveyances stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|--------------------------------|----------------------|
| Sediment Pond | <u>Vegetated Filter Strips</u> | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculates | Other |

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No Is there evidence of work outside the limits of the approved plan?
Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control
straw wattles
@ SATI exc.

Repair Needed

submerged -
will need
replacing

Action Taken

will be corrected
when digging
resumes at SATI

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

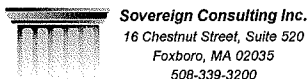
Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|-----------------------------------|
| 1 wattles in SATI exc area | Y | N | 9/17/13 | RC # D notified of changes needed |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump loc. | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/18/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Flow Shop Pond Project ID: AC001.005 Permit # _____Contractor Name: RC + DOn-Site Responsible Person (if applicable): Aaron LachanceNotice of Construction Filed Yes No
Pre Construction Inspection Yes No 8-14-13 (date)
Pre Construction Conference Yes No 8-1-13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Denotation/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Yes No Recorded rainfall since previous inspection: 0 inches
Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsolling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | |
| Temporary Stabilization | Berms | Riprap or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly? Replacement and/or repositioning of straw wattles in S471.
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|--------------------------------|----------------------|
| Sediment Pond | <u>Vegetated Filter Strips</u> | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculants | Other |

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No Is there evidence of work outside the limits of the approved plan?
Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

re positioning of straw
wattles @ SA 71

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

Compliance Date:

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: (date)

Yes

No

Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|------------------------------------|
| 1 wattles in SA 71 Exc area | Y | N | 9/17/13 | RECB will reposition straw wattles |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at drainage scale | N | N | | |
| 5 silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/19/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC #1

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No (NA) Detention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: 0 inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsolling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | |
| Temporary Stabilization | Berms | Riprap or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

Yes No NA Are drainage conveyances stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|----------------------------|----------------------|
| Sediment Pond | Vegetated Filter Strips | Ditch Check |
| Inlet Protection | Silt Fence | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculants | Other |

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No Is there evidence of work outside the limits of the approved plan?
Yes No Is construction being de-watered properly if applicable?
Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

| Type/Location of E&S Control | Repair Needed | Action Taken |
|------------------------------|---------------|--------------|
| No Action | | |
| Unsafe Condition | | |
| Corrective Actions | | |
| Stop Work Order | | |

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
 Yes No Are there any areas of active erosion evident?
 Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|--------------------------------------|
| 1 wattles in SATI exc area | Y | N | 9/17/13 | to be corrected when digging resumes |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump loc | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
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| 10 | | | | |



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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/29/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RCFD

On-Site Responsible Person (if applicable): Adam Lachance

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
☒ Yes No Recorded rainfall since previous inspection: 0 inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding
No new EP measures

☒ Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other
No new SC measures

☒ Yes No Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No Is there evidence of work outside the limits of the approved plan?
☒ Yes No NA Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|-------------------------------------|--|-----------------------------------|--|--|
| 1 wattles in SATI exc area | Y | N | 9/17/13 | Will be rechecked once digging resumes - currently submerged |
| 2 silt fencing on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 silt fence at soil stockpile area | N | N | | |
| 6 | | | | |
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/1/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC # D

On-Site Responsible Person (if applicable): Aaron LaChance

Notice of Construction Filed Yes No 8/14/13 (date)
Pre Construction Inspection Yes No 8/11/13 (date)
Pre Construction Conference Yes No 8/11/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Yes No Recorded rainfall since previous inspection: _____ inches
Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsolling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | <u>No new EP measures</u> |
| Temporary Stabilization | Berms | Riprap or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

Yes No NA Are drainage conveyances stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|----------------------------|---------------------------|
| Sediment Pond | Vegetated Filter Strips | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculates | Other |
| | | <u>No new SC measures</u> |

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No Is there evidence of work outside the limits of the approved plan?
Yes No NA Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|----------------------------------|--|-----------------------------------|--|---|
| 1 wattles in SATI exc. area | Y | N | 9/17/13 | will be needed once digging resumes - currently submerged - Digging on hold for short term. |
| 2 silt fencing on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fencing at drainage swale | N | N | | |
| 5 silt fencing at stockpile area | N | N | | |
| 6 | | | | |
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/2/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron LaChance

Notice of Construction Filed Yes No _____ (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

☒ Yes ☐ No Are perimeter controls installed?
☒ Yes ☐ No Are perimeter BMPs installed correctly?
☒ Yes ☐ No NA Dentation/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes ☐ No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: _____ inches
☒ Yes ☐ No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes ☐ No Is construction following the phasing and sequencing plan?
☒ Yes ☐ No Are Erosion Prevention measures located in the proper places?
☒ Yes ☐ No Are Erosion Prevention measures installed correctly?
☒ Yes ☐ No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsolling | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | <u>No new EP measures</u> |
| Temporary Stabilization | Berms | Riprap or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

☒ Yes ☐ No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes ☐ No NA Are previously stabilized areas being maintained if applicable?
☒ Yes ☐ No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes ☐ No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes ☐ No NA Photo Documentation

SEDIMENT CONTROL

☒ Yes ☐ No NA Are Sediment Control practices located properly?
☒ Yes ☐ No NA Are Sediment Control practices installed properly?
☒ Yes ☐ No NA Are all soil stockpiles adequately contained?
☒ Yes ☐ No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|-----------------------------------|----------------------|
| Sediment Pond | <u>Vegetated Filter Strips</u> | Ditch Check |
| Inlet Protection | <u>Silt Fence</u> | Sediment Berms/Dikes |
| Sediment Trap | <u>Polyacrylamide Flocculants</u> | Other |

☒ Yes ☐ No NA Photo Documentation
☒ Yes ☐ No NA Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes ☐ No NA Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes ☐ No NA Are there BMPs installed in streams or active channels?
☒ Yes ☐ No NA If yes, have them removed unless specified on the plans and check for permits.
☒ Yes ☐ No NA Is there evidence of work outside the limits of the approved plan?
☒ Yes ☐ No NA Is construction being de-watered properly if applicable?
Are there off-site impacts? Yes ☒ No NA If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes ☐ No NA Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

Type/Location of E&S Control Repair Needed Action Taken

--> Required Actions:

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

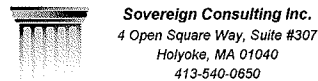
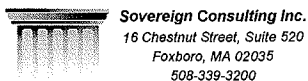
Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|----------------------------------|--|-----------------------------------|--|---|
| 1 wattles in SATI exc. area | Y | N | 9/17/13 | same as previous - will be corrected once digging resumed |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 silt fencing at stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/3/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed Yes No
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

☒ Yes No Are perimeter controls installed?
☒ Yes No Are perimeter BMPs installed correctly?
☒ Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
☒ Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: _____ inches
☒ Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

☒ Yes No Is construction following the phasing and sequencing plan?
☒ Yes No Are Erosion Prevention measures located in the proper places?
☒ Yes No Are Erosion Prevention measures installed correctly?
☒ Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

| | | | |
|-------------------------|-------------------|---|---------------------------|
| Surface Roughening | Outlet Protection | Seeding | Stream Bank Stabilization |
| Topsailing | Bench Terracing | Clearwater Diversion | Other |
| Ground Cover Plants | Mulching | RECPs (Rolled Erosion Control Products) | <u>No new EP measures</u> |
| Temporary Stabilization | Berms | Riprap or Aggregate | |
| Polyacrylamide (PAM) | Sodding | Hydro-seeding | |

☒ Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
☒ Yes No NA Are previously stabilized areas being maintained if applicable?
☒ Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
☒ Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
☒ Yes No Photo Documentation

SEDIMENT CONTROL

☒ Yes No NA Are Sediment Control practices located properly?
☒ Yes No NA Are Sediment Control practices installed properly?
☒ Yes No NA Are all soil stockpiles adequately contained?
☒ Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

| | | |
|------------------|----------------------------|----------------------|
| Sediment Pond | Vegetated Filter Strips | Ditch Check |
| Inlet Protection | Silt Fence | Sediment Berms/Dikes |
| Sediment Trap | Polyacrylamide Flocculants | Other |

☒ Yes No Photo Documentation
☒ Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
☒ Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

☒ Yes No Are there BMPs installed in streams or active channels?
☒ Yes No If yes, have them removed unless specified on the plans and check for permits.
☒ Yes No Is there evidence of work outside the limits of the approved plan?
☒ Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

☒ Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action

Unsafe Condition

Corrective Actions

Stop Work Order

Type/Location of E&S Control

Repair Needed

Action Taken

--> Required Actions:

Compliance Date:

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?

Yes No Are there any areas of active erosion evident?

Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|----------------------------------|--|-----------------------------------|--|---|
| 1 wattles in SA 71 exc area | Y | N | 9/17/13 | same as previous - will be corrected once digging resumes |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at drainage swale | N | N | | |
| 5 silt fencing at stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200



Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/8/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC061-005 Permit # _____

Contractor Name: RC #1

On-Site Responsible Person (if applicable): Arnon LaChance

Notice of Construction Filed Yes No _____ (date)
Pre Construction Inspection Yes No 8/14/13 (date)
Pre Construction Conference Yes No 8/1/13 (date)

PROJECT INITIATION

Yes No Are perimeter controls installed?
Yes No Are perimeter BMPs installed correctly?
Yes No NA Detention/sediment basin installed as the first land disturbing activity if applicable?
Yes No Is there a functional rain gauge located on the project site?
Recorded rainfall since previous inspection: _____ inches
Yes No Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes No Is construction following the phasing and sequencing plan?
Yes No Are Erosion Prevention measures located in the proper places?
Yes No Are Erosion Prevention measures installed correctly?
Yes No Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening Outlet Protection Seeding Stream Bank Stabilization
Topsoiling Bench Terracing Clearwater Diversion Other No new EP measures
Ground Cover Plants Mulching RECPs (Rolled Erosion Control Products)
Temporary Stabilization Berms Riprap or Aggregate
Polyacrylamide (PAM) Sodding Hydro-seeding

Yes No NA Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
Yes No NA Are previously stabilized areas being maintained if applicable?
Yes No NA Has activity on the site been temporarily ceased for 21 days or more?
Yes No NA If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes No Photo Documentation

SEDIMENT CONTROL

Yes No NA Are Sediment Control practices located properly?
Yes No NA Are Sediment Control practices installed properly?
Yes No NA Are all soil stockpiles adequately contained?
Yes No NA Are Sediment Control measures protecting off site areas?

If Sediment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond Vegetated Filter Strips Ditch Check
Inlet Protection Silt Fence Sediment Berms/Dikes
Sediment Trap Polyacrylamide Flocculants Other No new SC measures

Yes No Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes No Are there BMPs installed in streams or active channels?
Yes No If yes, have them removed unless specified on the plans and check for permits.
Yes No Is there evidence of work outside the limits of the approved plan?
Yes No Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

| | | | | |
|-------------------|------|---------|-----------------|--------|
| Waterbody | None | Minimal | Needs Attention | Severe |
| Roadway | None | Minimal | Needs Attention | Severe |
| Adjacent Property | None | Minimal | Needs Attention | Severe |
| Air/Dust | None | Minimal | Needs Attention | Severe |
| Storm Sewer | None | Minimal | Needs Attention | Severe |

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action Type/Location of E&S Control Repair Needed Action Taken
 Unsafe Condition
 Corrective Actions --> Required Actions:
 Stop Work Order

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
 Yes No Are there any areas of active erosion evident?
 Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR
 have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

| Type/Location of E&S Control | Repairs or Other Maintenance Needed? (Y/N) | Corrective Action Required? (Y/N) | Date on Which Maintenance or Corrective Action First Identified? | Notes |
|---------------------------------------|--|-----------------------------------|--|--|
| 1 wattles in SH 71 exc. area | Y | N | 9/17/13 | wattles still submerged - will be corrected once digging resumes |
| 2 silt fence on ATV road | N | N | | |
| 3 wattles at pump location | N | N | | |
| 4 silt fence at drainage swale | N | | | |
| 5 silt fencing at soil stockpile area | N | N | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

APPENDIX D

Red Cove Confirmation Sampling Analytical Data

(See CD Included Separately)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317993 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/17/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1317993-01 | RC-SD-43-001-091113 | PLOW SHOP POND | 09/11/13 14:55 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Case Narrative (continued)

Report Submission

This report replaces the report issued September 16, 2013. The matrix description has been changed. Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSC was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1317993-01: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit and LOD for arsenic. Since the sample was >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 09/17/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1317993-01
 Client ID: RC-SD-43-001-091113
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 75%

Date Collected: 09/11/13 14:55
 Date Received: 09/12/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 25.3 | Q | mg/kg | 0.106 | 0.013 | 5 | 09/13/13 13:00 | 09/16/13 11:26 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG635915-1 | | | | | | | | | | |
| Arsenic, Total | 0.012 | J | mg/kg | 0.050 | 0.006 | 2 | 09/13/13 13:00 | 09/16/13 11:24 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG635915-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635915-4 WG635915-5 QC Sample: L1317994-02 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 229. | 149 | 393 | 110 | | 388 | 112 | | 80-120 | 1 | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635915-3 QC Sample: L1317994-02 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 229. | 233 | mg/kg | 2 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1317993-01
Client ID: RC-SD-43-001-091113
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 14:55
Date Received: 09/12/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 74.6 | | % | 0.100 | 0.100 | 1 | - | 09/13/13 09:50 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635823-1 QC Sample: L1317994-02 Client ID: DUP Sample | | | | | | |
| Solids, Total | 42.8 | 41.9 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317993-01A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂-B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1



Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: Devens

Client Information

Client: Sovereign Consulting Inc.
 Address: 4 Open Square Way, Ste. 307
 Holyoke, MA 01040

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Phone: 413-540-0656

Turn-Around Time

Fax: 413-540-0656

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Due Date:

Time:

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID
(Lab Use Only)

Sample ID

Collection

Date

Time

Sample
MatrixSampler's
Initials

Date Rec'd in Lab:

ALPHA Job #: L1317993

Report Information Data Deliverables

☐ FAX☒ EMAIL☒ ADEX☐ Add'l Deliverables

Billing Information

☒ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes☒ No

Are MCP Analytical Methods Required?

☐ Yes☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As by 6020

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific
Comments

TOTAL # BOTTLES

PLEASE ANSWER QUESTIONS ABOVE!

Container Type

Preservative

IS YOUR PROJECT
 MA MCP or CT RCP?

FORM NO: 01-01 (I)
 (rev. 5-JAN-12)

Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly
 and completely. Samples can
 not be logged in and
 turnaround time clock will not
 start until any ambiguities are
 resolved. All samples
 submitted are subject to
 Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317828 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/13/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1317828-01 | RC-SD-52-001-091113 | PLOW SHOP POND | 09/11/13 14:12 |
| L1317828-02 | EB-091113-02 | PLOW SHOP POND | 09/11/13 14:30 |
| L1317828-03 | FD-091113-01 | PLOW SHOP POND | 09/11/13 14:12 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317828-01 and -03, have concentrations above the LOD for arsenic.

The initial calibration blank and continuous calibration blank, associated with L1317828-02, have concentrations above the LOD for arsenic. Since the sample was non-detect for this target analyte, no further

Project Name: DEVENS
Project Number: AC001.005

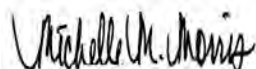
Lab Number: L1317828
Report Date: 09/13/13

Case Narrative (continued)

actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/13/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-01
 Client ID: RC-SD-52-001-091113
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 68%

Date Collected: 09/11/13 14:12
 Date Received: 09/11/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 39.5 | Q | mg/kg | 0.105 | 0.013 | 5 | 09/12/13 10:00 | 09/13/13 10:20 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-02
 Client ID: EB-091113-02
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/11/13 14:30
 Date Received: 09/11/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | ND | Q | ug/l | 0.5000 | 0.0850 | 1 | 09/12/13 10:00 | 09/13/13 09:51 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-03
 Client ID: FD-091113-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 73%

Date Collected: 09/11/13 14:12
 Date Received: 09/11/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 27.6 | Q | mg/kg | 0.038 | 0.005 | 2 | 09/12/13 10:00 | 09/13/13 10:25 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01,03 Batch: WG635581-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/12/13 10:00 | 09/13/13 10:18 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 02 Batch: WG635583-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.0850 | 1 | 09/12/13 10:00 | 09/13/13 09:50 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01,03 Batch: WG635581-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 100 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG635583-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 97 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG635581-4 WG635581-5 QC Sample: L1317828-01 Client ID: RC-SD-52-001-091113 | | | | | | | | | | | | |
| Arsenic, Total | 39.5 | 85 | 116 | 90 | | 123 | 102 | | 80-120 | 6 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635583-4 QC Sample: L1317828-02 Client ID: EB-091113-02 | | | | | | | | | | | | |
| Arsenic, Total | ND | 500 | 512.9 | 102 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG635581-3 QC Sample: L1317828-01 Client ID: RC-SD-52-001-091113 | | | | | | |
| Arsenic, Total | 39.5 | 45.2 | mg/kg | 13 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635583-3 QC Sample: L1317828-02 Client ID: EB-091113-02 | | | | | | |
| Arsenic, Total | ND | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-01
Client ID: RC-SD-52-001-091113
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 14:12
Date Received: 09/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 68.0 | | % | 0.100 | 0.100 | 1 | - | 09/12/13 09:03 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-03
Client ID: FD-091113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 14:12
Date Received: 09/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 73.2 | | % | 0.100 | 0.100 | 1 | - | 09/12/13 09:03 | 30,2540G | KB |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG635565-1 QC Sample: L1317828-01 Client ID: RC-SD-52-001-091113 | | | | | | |
| Solids, Total | 68.0 | 68.7 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317828-01A | Amber 120ml unpreserved | A | N/A | 3.9 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1317828-01B | Amber 120ml unpreserved | A | N/A | 3.9 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1317828-01C | Amber 120ml unpreserved | A | N/A | 3.9 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1317828-02A | Plastic 250ml HNO3 preserved | A | <2 | 3.9 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1317828-03A | Amber 120ml unpreserved | A | N/A | 3.9 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 23 of 29 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317994 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/16/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1317994-01 | RC-SD-51-001-091213 | PLOW SHOP POND | 09/12/13 10:00 |
| L1317994-02 | RC-SD-42-001-091213 | PLOW SHOP POND | 09/12/13 11:15 |
| L1317994-03 | EB-091213-01 | PLOW SHOP POND | 09/12/13 11:45 |
| L1317994-04 | RC-SD-32-001-091213 | PLOW SHOP POND | 09/12/13 14:15 |
| L1317994-05 | FD-091213-01 | PLOW SHOP POND | 09/12/13 11:15 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1317994-01, -02, -04 and -05: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit and LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1317994-03: The initial calibration blank and continuous calibration blank have concentrations above the

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1317994
Report Date: 09/16/13

Case Narrative (continued)

reporting limit and LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further action was taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/16/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-01
 Client ID: RC-SD-51-001-091213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 52%

Date Collected: 09/12/13 10:00
 Date Received: 09/12/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 183 | Q | mg/kg | 0.134 | 0.017 | 5 | 09/13/13 13:00 | 09/16/13 11:27 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-02
 Client ID: RC-SD-42-001-091213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 43%

Date Collected: 09/12/13 11:15
 Date Received: 09/12/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 229 | Q | mg/kg | 0.180 | 0.022 | 5 | 09/13/13 13:00 | 09/16/13 11:29 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-03
Client ID: EB-091213-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/12/13 11:45
Date Received: 09/12/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.1361 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 09/13/13 13:00 | 09/16/13 12:08 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-04
 Client ID: RC-SD-32-001-091213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 74%

Date Collected: 09/12/13 14:15
 Date Received: 09/12/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 35.6 | Q | mg/kg | 0.091 | 0.011 | 5 | 09/13/13 13:00 | 09/16/13 11:33 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-05
 Client ID: FD-091213-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 49%

Date Collected: 09/12/13 11:15
 Date Received: 09/12/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 216 | Q | mg/kg | 0.144 | 0.018 | 5 | 09/13/13 13:00 | 09/16/13 11:34 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG635915-1 | | | | | | | | | | |
| Arsenic, Total | 0.012 | J | mg/kg | 0.050 | 0.006 | 2 | 09/13/13 13:00 | 09/16/13 11:24 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 03 Batch: WG635916-1 | | | | | | | | | | |
| Arsenic, Total | 0.1443 | J | ug/l | 0.5000 | 0.0850 | 1 | 09/13/13 13:00 | 09/16/13 12:03 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG635915-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG635916-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 94 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG635915-4 WG635915-5 QC Sample: L1317994-02 Client ID: RC-SD-42-001-091213 | | | | | | | | | | | | |
| Arsenic, Total | 229. | 149 | 393 | 110 | | 388 | 112 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG635916-4 QC Sample: L1317994-03 Client ID: EB-091213-01 | | | | | | | | | | | | |
| Arsenic, Total | 0.1361J | 500 | 473.7 | 95 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG635915-3 QC Sample: L1317994-02 Client ID: RC-SD-42-001-091213 | | | | | | |
| Arsenic, Total | 229. | 233 | mg/kg | 2 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG635916-3 QC Sample: L1317994-03 Client ID: EB-091213-01 | | | | | | |
| Arsenic, Total | 0.1361J | 0.0992J | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-01
Client ID: RC-SD-51-001-091213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 10:00
Date Received: 09/12/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 51.9 | | % | 0.100 | 0.100 | 1 | - | 09/13/13 09:50 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-02
Client ID: RC-SD-42-001-091213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 11:15
Date Received: 09/12/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 42.8 | | % | 0.100 | 0.100 | 1 | - | 09/13/13 09:50 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-04
Client ID: RC-SD-32-001-091213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 14:15
Date Received: 09/12/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 73.7 | | % | 0.100 | 0.100 | 1 | - | 09/13/13 09:50 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-05
Client ID: FD-091213-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 11:15
Date Received: 09/12/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 48.6 | | % | 0.100 | 0.100 | 1 | - | 09/13/13 09:50 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1317994
Report Date: 09/16/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG635823-1 QC Sample: L1317994-02 Client ID: RC-SD-42-001-091213 | | | | | | |
| Solids, Total | 42.8 | 41.9 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317994-01A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1317994-02A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1317994-02B | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1317994-02C | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1317994-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.2 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1317994-04A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1317994-05A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

[illegible]

[illegible]



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318098 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/17/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1318098-01 | RC-SD-33-001-091313 | PLOW SHOP POND | 09/13/13 13:22 |
| L1318098-02 | FD-091313-01 | PLOW SHOP POND | 09/13/13 13:22 |
| L1318098-03 | EB-091313-01 | PLOW SHOP POND | 09/13/13 13:40 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1318098-01 and -02, have concentrations above the reporting limit and LOD for arsenic. Since the associated samples are 10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13


Case Narrative (continued)

reported.

The initial calibration blank and continuous calibration blank, associated with L1318098-03, have concentrations above the LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/17/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-01
 Client ID: RC-SD-33-001-091313
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 13%

Date Collected: 09/13/13 13:22
 Date Received: 09/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 664 | Q | mg/kg | 1.04 | 0.129 | 10 | 09/16/13 12:00 | 09/17/13 10:31 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-02
 Client ID: FD-091313-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 13%

Date Collected: 09/13/13 13:22
 Date Received: 09/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 632 | Q | mg/kg | 0.531 | 0.066 | 5 | 09/16/13 12:00 | 09/17/13 10:35 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-03
Client ID: EB-091313-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/13/13 13:40
Date Received: 09/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | ND | Q | ug/l | 0.5000 | 0.0850 | 1 | 09/16/13 12:00 | 09/17/13 10:58 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG636412-1 | | | | | | | | | | |
| Arsenic, Total | 0.012 | J | mg/kg | 0.050 | 0.006 | 2 | 09/16/13 12:00 | 09/17/13 10:22 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 03 Batch: WG636416-1 | | | | | | | | | | |
| Arsenic, Total | 0.0911 | J | ug/l | 0.5000 | 0.0850 | 1 | 09/16/13 12:00 | 09/17/13 10:52 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG636412-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 101 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG636416-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG636412-4 WG636412-5 QC Sample: L1318098-01 Client ID: RC-SD-33-001-091313 | | | | | | | | | | | | |
| Arsenic, Total | 664. | 417 | 1040 | 90 | | 1070 | 97 | | 80-120 | 3 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG636416-4 QC Sample: L1318098-03 Client ID: EB-091313-01 | | | | | | | | | | | | |
| Arsenic, Total | ND | 500 | 502.3 | 100 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG636412-3 QC Sample: L1318098-01 Client ID: RC-SD-33-001-091313 | | | | | | |
| Arsenic, Total | 664. | 638 | mg/kg | 4 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG636416-3 QC Sample: L1318098-03 Client ID: EB-091313-01 | | | | | | |
| Arsenic, Total | ND | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-01
Client ID: RC-SD-33-001-091313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/13/13 13:22
Date Received: 09/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 12.7 | | % | 0.100 | 0.100 | 1 | - | 09/16/13 10:44 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-02
Client ID: FD-091313-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/13/13 13:22
Date Received: 09/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 12.8 | | % | 0.100 | 0.100 | 1 | - | 09/16/13 10:44 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG636370-1 QC Sample: L1318098-01 Client ID: RC-SD-33-001-091313 | | | | | | |
| Solids, Total | 12.7 | 12.7 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318098-01A | Amber 120ml unpreserved | A | N/A | 3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318098-01B | Amber 120ml unpreserved | A | N/A | 3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318098-01C | Amber 120ml unpreserved | A | N/A | 3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318098-02A | Amber 120ml unpreserved | A | N/A | 3 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1318098-03A | Plastic 250ml HNO3 preserved | A | <2 | 3 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 23 of 29 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



CHAIN OF CUSTODY

PAGE OF

2/2

Project Information

Westborough, MA Mansfield, MA
TEL: 508-898-9220 TEL: 508-822-9300
FAX: 508-898-9193 FAX: 508-822-3288

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: 9/16/13 Time: 24 HR TAT

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab 9/13/13

ALPHA Job #: L1318096

Report Information Data Deliverables

☐ FAX☒ EMAIL☒ ADEX☐ Add'l Deliverables

Billing Information

☒ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes☒ No

Are MCP Analytical Methods Required?

☐ Yes☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler's Initials |
|--------------------------------|---------------------|------------|------|-----------------------------------|--------------------|
| | | Date | Time | | |
| 180981 | RC-SD-33-001-091313 | 091313 | 1322 | SD | EF |
| 12 | FD-091313-01 | 091313 | 1322 | SD | EF |
| 13 | EB-091313-01 | 091313 | 1340 | ^{EF} SD AQ | EF |
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PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT
MA MCP or CT RCP?

FORM NO: 01-01(1)
(rev. 5-JAN-12)

Container Type

P

A

Preservative

C

A

Relinquished By:

Date/Time

Received By:

Date/Time

Conc. Leary
Richard Scott
Carrier fridge

9/13/13
9/13/13 1645
9/13/13 0030

Richard Scott
Carrier fridge
9/13/13 8145

9/13/13 1531
9/13/13 1645
9/13/13 0030
9/13/13 8145

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318326 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/19/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1318326-01 | RC-SD-50-001-091713 | PLOW SHOP POND | 09/17/13 14:55 |
| L1318326-02 | RC-SD-55-001-091713 | PLOW SHOP POND | 09/17/13 15:00 |
| L1318326-03 | FD-091713-01 | PLOW SHOP POND | 09/17/13 14:55 |
| L1318326-04 | EB-091713-01 | PLOW SHOP POND | 09/17/13 15:15 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318326-01 through -03: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318326-04: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Case Narrative (continued)

for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken.

The results of the original analysis are reported.


The WG637136-4/-5 MS/MSD recoveries, performed on L1318326-01, are above the acceptance criteria for arsenic (248%/266%); however, the associated LCS recovery was within criteria. No further action was taken.

The parent sample (L1318326-01) should be qualified as "J" for this analyte.

The WG637136-3 Laboratory Duplicate RPD, performed on L1318326-01, is outside the acceptance criteria for arsenic (35%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/19/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-01
 Client ID: RC-SD-50-001-091713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 31%

Date Collected: 09/17/13 14:55
 Date Received: 09/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 510 | Q | mg/kg | 1.09 | 0.134 | 25 | 09/18/13 18:00 | 09/19/13 11:16 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-02
 Client ID: RC-SD-55-001-091713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 70%

Date Collected: 09/17/13 15:00
 Date Received: 09/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 29.2 | Q | mg/kg | 0.110 | 0.014 | 5 | 09/18/13 18:00 | 09/19/13 11:23 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-03
 Client ID: FD-091713-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 31%

Date Collected: 09/17/13 14:55
 Date Received: 09/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 543 | Q | mg/kg | 0.436 | 0.054 | 10 | 09/18/13 18:00 | 09/19/13 11:24 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-04
Client ID: EB-091713-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/17/13 15:15
Date Received: 09/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.1975 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 09/18/13 18:00 | 09/19/13 11:56 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG637136-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/18/13 18:00 | 09/19/13 11:14 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 04 Batch: WG637138-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.0850 | 1 | 09/18/13 18:00 | 09/19/13 11:53 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG637136-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 99 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 04 Batch: WG637138-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 94 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637136-4 WG637136-5 QC Sample: L1318326-01 Client ID: RC-SD-50-001-091713 | | | | | | | | | | | | |
| Arsenic, Total | 510. | 173 | 938 | 248 | Q | 973 | 266 | Q | 80-120 | 4 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637136-7 WG637136-8 QC Sample: L1318417-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 2910 | 284 | 2660 | 0 | Q | 3430 | 185 | Q | 80-120 | 25 | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG637138-4 QC Sample: L1318326-04 Client ID: EB-091713-01 | | | | | | | | | | | | |
| Arsenic, Total | 0.1975J | 500 | 484.5 | 97 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637136-3 QC Sample: L1318326-01 Client ID: RC-SD-50-001-091713 | | | | | | |
| Arsenic, Total | 510. | 726 | mg/kg | 35 | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG637138-3 QC Sample: L1318326-04 Client ID: EB-091713-01 | | | | | | |
| Arsenic, Total | 0.1975J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-01
Client ID: RC-SD-50-001-091713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/17/13 14:55
Date Received: 09/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 31.1 | | % | 0.100 | 0.100 | 1 | - | 09/18/13 10:37 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-02
Client ID: RC-SD-55-001-091713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/17/13 15:00
Date Received: 09/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 70.0 | | % | 0.100 | 0.100 | 1 | - | 09/18/13 10:37 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-03
Client ID: FD-091713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/17/13 14:55
Date Received: 09/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 30.8 | | % | 0.100 | 0.100 | 1 | - | 09/18/13 10:37 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637073-1 QC Sample: L1318326-01 Client ID: RC-SD-50-001-091713 | | | | | | |
| Solids, Total | 31.1 | 31.3 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318326-01A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318326-01B | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318326-01C | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318326-02A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1318326-03A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1318326-04A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

PAGE 1 OF 1

Project Information

| | |
|------------------------|----------------------|
| Westborough, MA | Mansfield, MA |
| TEL: 508-898-9220 | TEL: 508-822-9300 |
| FAX: 508-898-9193 | FAX: 508-822-3288 |

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date:

Time:

24 hr T/A+T

ALPHA Lab ID
(Lab Use Only)

Sample ID

Collection

| Date | Time |
|------|------|
|------|------|

Sample
Matrix

**Sampler's
Initials**

[illegible]

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I)
(rev. 5-JAN-12)

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318417 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/19/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1318417-01 | RC-SD-41-001-091813 | PLOW SHOP POND | 09/18/13 14:00 |
| L1318417-02 | FD-091813-01 | PLOW SHOP POND | 09/18/13 14:00 |
| L1318417-03 | EB-091813-01 | PLOW SHOP POND | 09/18/13 14:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318417-01 through -02: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318417-03: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Case Narrative (continued)


for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken.

The results of the original analysis are reported.

The WG637136-7/-8 MS/MSD recoveries for arsenic (0%/185%), performed on L1318417-01, do not apply because the sample concentration is greater than four times the spike amount added. In addition, the WG637136-7/-8 MS/MSD RPD, performed on L1318417-01, is above the acceptance criteria for arsenic (25%).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/19/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-01
 Client ID: RC-SD-41-001-091813
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 20%

Date Collected: 09/18/13 14:00
 Date Received: 09/18/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 2910 | Q | mg/kg | 1.78 | 0.220 | 25 | 09/18/13 18:00 | 09/19/13 11:25 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-02
 Client ID: FD-091813-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 21%

Date Collected: 09/18/13 14:00
 Date Received: 09/18/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 2510 | Q | mg/kg | 1.72 | 0.213 | 25 | 09/18/13 18:00 | 09/19/13 11:28 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-03
 Client ID: EB-091813-01
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/18/13 14:30
 Date Received: 09/18/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.1371 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 09/18/13 18:00 | 09/19/13 12:04 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG637136-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/18/13 18:00 | 09/19/13 11:14 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 03 Batch: WG637138-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.0850 | 1 | 09/18/13 18:00 | 09/19/13 11:53 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG637136-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 99 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG637138-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 94 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637136-4 WG637136-5 QC Sample: L1318326-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 510. | 173 | 938 | 248 | Q | 973 | 266 | Q | 80-120 | 4 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637136-7 WG637136-8 QC Sample: L1318417-01 Client ID: RC-SD-41-001-091813 | | | | | | | | | | | | |
| Arsenic, Total | 2910 | 284 | 2660 | 0 | Q | 3430 | 185 | Q | 80-120 | 25 | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637138-4 QC Sample: L1318326-04 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 0.1975J | 500 | 484.5 | 97 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637136-3 QC Sample: L1318326-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 510. | 726 | mg/kg | 35 | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637138-3 QC Sample: L1318326-04 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 0.1975J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-01
Client ID: RC-SD-41-001-091813
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/18/13 14:00
Date Received: 09/18/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 20.1 | | % | 0.100 | 0.100 | 1 | - | 09/19/13 07:25 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-02
Client ID: FD-091813-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/18/13 14:00
Date Received: 09/18/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 20.7 | | % | 0.100 | 0.100 | 1 | - | 09/19/13 07:25 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637319-1 QC Sample: L1318417-01 Client ID: RC-SD-41-001-091813 | | | | | | |
| Solids, Total | 20.1 | 20.5 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318417-01A | Amber 120ml unpreserved | A | N/A | 2.9 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318417-01B | Amber 120ml unpreserved | A | N/A | 2.9 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318417-01C | Amber 120ml unpreserved | A | N/A | 2.9 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318417-02A | Amber 120ml unpreserved | A | N/A | 2.9 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1318417-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.9 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 26 of 29 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318528 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/23/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1318528-01 | RC-SD-40-001-091913 | PLOW SHOP POND | 09/19/13 13:00 |
| L1318528-02 | FD-091913-01 | PLOW SHOP POND | 09/19/13 13:00 |
| L1318528-03 | EB-091913-01 | PLOW SHOP POND | 09/19/13 13:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318528-01 and -02: The continuing calibration blanks have concentrations above the LOD for arsenic.

Since the sample concentrations were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318528-03: The continuing calibration blanks have concentrations above the LOD for arsenic. Since the

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13


Case Narrative (continued)

sample concentration was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

WG637815: A laboratory duplicate and/or matrix spike could not be performed due to insufficient sample volume available for analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/23/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-01
 Client ID: RC-SD-40-001-091913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 27%

Date Collected: 09/19/13 13:00
 Date Received: 09/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 2090 | Q | mg/kg | 2.59 | 0.320 | 50 | 09/20/13 15:00 | 09/23/13 11:18 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-02
 Client ID: FD-091913-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 27%

Date Collected: 09/19/13 13:00
 Date Received: 09/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 2690 | Q | mg/kg | 2.63 | 0.325 | 50 | 09/20/13 15:00 | 09/23/13 11:22 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-03
Client ID: EB-091913-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 13:30
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.1277 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 09/20/13 15:00 | 09/23/13 10:59 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 03 Batch: WG637815-1 | | | | | | | | | | |
| Arsenic, Total | 0.1981 | J | ug/l | 0.5000 | 0.0850 | 1 | 09/20/13 15:00 | 09/23/13 10:50 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG637823-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/20/13 15:00 | 09/23/13 11:09 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG637815-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 103 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG637823-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637823-4 WG637823-5 QC Sample: L1318528-01 Client ID: RC-SD-40-001-091913 | | | | | | | | | | | | |
| Arsenic, Total | 2090 | 210 | 2330 | 114 | | 2290 | 96 | | 80-120 | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1318528
Report Date: 09/23/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637823-3 QC Sample: L1318528-01 Client ID: RC-SD-40-001-091913 | | | | | | |
| Arsenic, Total | 2090 | 2160 | mg/kg | 3 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-01
Client ID: RC-SD-40-001-091913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 13:00
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 26.5 | | % | 0.100 | 0.100 | 1 | - | 09/20/13 11:40 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-02
Client ID: FD-091913-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 13:00
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 27.0 | | % | 0.100 | 0.100 | 1 | - | 09/20/13 11:40 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637758-1 QC Sample: L1318528-01 Client ID: RC-SD-40-001-091913 | | | | | | |
| Solids, Total | 26.5 | 26.8 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318528-01A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318528-01B | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318528-01C | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318528-02A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318528-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

PAGE OF

| | |
|------------------------|----------------------|
| Westborough, MA | Mansfield, MA |
| TEL: 508-898-9220 | TEL: 508-822-9300 |
| FAX: 508-898-9193 | FAX: 508-822-3288 |

24 HR TAT

L1318528

| | |
|-------|-----------------|
| Total | Arsenic by 6030 |
|-------|-----------------|

TOTAL # BOTTLES

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Ret add 9/20/13 840

Put also 9/20/13 9:30
Bullseye 9/20/13 8:40



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318731 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/24/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1318731-01 | RC-SD-49-001-092013 | PLOW SHOP POND | 09/20/13 11:35 |
| L1318731-02 | EB-092013-01 | PLOW SHOP POND | 09/20/13 12:00 |
| L1318731-03 | RC-SD-53-001-092013 | PLOW SHOP POND | 09/20/13 14:00 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318731-01 and -03: The continuous calibration blanks have concentrations above the LOD and reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318731-02: The initial calibration blank has concentrations above the LOD for arsenic. Since the sample

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13


Case Narrative (continued)

was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG638351-5 MSD recovery, performed on L1318731-01, is above the acceptance criteria for arsenic (141%); however, the associated LCS and MS recoveries were within criteria. No further action was taken. The parent sample (L1318731-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/24/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-01
 Client ID: RC-SD-49-001-092013
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 55%

Date Collected: 09/20/13 11:35
 Date Received: 09/20/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 274 | Q | mg/kg | 0.252 | 0.031 | 10 | 09/23/13 16:30 | 09/24/13 10:41 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-02
Client ID: EB-092013-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/20/13 12:00
Date Received: 09/20/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | ND | Q | ug/l | 0.5000 | 0.0850 | 1 | 09/23/13 16:30 | 09/24/13 10:24 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-03
 Client ID: RC-SD-53-001-092013
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 93%

Date Collected: 09/20/13 14:00
 Date Received: 09/20/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 6.81 | Q | mg/kg | 0.030 | 0.004 | 2 | 09/23/13 16:30 | 09/24/13 10:45 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01,03 Batch: WG638351-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/23/13 16:30 | 09/24/13 10:31 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 02 Batch: WG638352-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.0850 | 1 | 09/23/13 16:30 | 09/24/13 10:17 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01,03 Batch: WG638351-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG638352-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG638351-4 WG638351-5 QC Sample: L1318731-01 Client ID: RC-SD-49-001-092013 | | | | | | | | | | | | |
| Arsenic, Total | 274. | 101 | 396 | 120 | | 416 | 141 | Q | 80-120 | 5 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-4 QC Sample: L1318731-02 Client ID: EB-092013-01 | | | | | | | | | | | | |
| Arsenic, Total | ND | 500 | 496.1 | 99 | | - | - | | 80-120 | - | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1318731
Report Date: 09/24/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG638351-3 QC Sample: L1318731-01 Client ID: RC-SD-49-001-092013 | | | | | | |
| Arsenic, Total | 274. | 331 | mg/kg | 19 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-3 QC Sample: L1318731-02 Client ID: EB-092013-01 | | | | | | |
| Arsenic, Total | ND | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-01
Client ID: RC-SD-49-001-092013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/20/13 11:35
Date Received: 09/20/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 54.8 | | % | 0.100 | 0.100 | 1 | - | 09/23/13 11:18 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-03
Client ID: RC-SD-53-001-092013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/20/13 14:00
Date Received: 09/20/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 92.8 | | % | 0.100 | 0.100 | 1 | - | 09/23/13 11:18 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1318731
Report Date: 09/24/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG638221-1 QC Sample: L1318731-01 Client ID: RC-SD-49-001-092013 | | | | | | |
| Solids, Total | 54.8 | 56.0 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318731-01A | Amber 120ml unpreserved | A | N/A | 4.4 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318731-02A | Plastic 250ml HNO3 preserved | A | <2 | 4.4 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1318731-03A | Glass 100ml unpreserved | A | N/A | 4.4 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318780 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/24/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1318780-01 | RC-SD-54-001-092313 | PLOW SHOP POND | 09/23/13 12:00 |
| L1318780-02 | EB-092313-01 | PLOW SHOP POND | 09/23/13 12:15 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Sample Receipt

The samples were received at the laboratory below the required temperature range. The samples were transported to the laboratory in a cooler with ice but were not frozen upon receipt.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13


Case Narrative (continued)

L1318780-01: The continuous calibration blanks have concentrations above the LOD and reporting limit for arsenic. Since the sample was >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318780-02: The initial calibration blank has concentrations above the LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/24/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318780-01
 Client ID: RC-SD-54-001-092313
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 79%

Date Collected: 09/23/13 12:00
 Date Received: 09/23/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 31.7 | Q | mg/kg | 0.036 | 0.004 | 2 | 09/23/13 16:30 | 09/24/13 10:46 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318780-02
Client ID: EB-092313-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/23/13 12:15
Date Received: 09/23/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | ND | Q | ug/l | 0.5000 | 0.0850 | 1 | 09/23/13 16:30 | 09/24/13 10:25 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG638351-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/23/13 16:30 | 09/24/13 10:31 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 02 Batch: WG638352-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.0850 | 1 | 09/23/13 16:30 | 09/24/13 10:17 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG638351-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG638352-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG638351-4 WG638351-5 QC Sample: L1318731-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 274. | 101 | 396 | 120 | | 416 | 141 | Q | 80-120 | 5 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-4 QC Sample: L1318731-02 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | ND | 500 | 496.1 | 99 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG638351-3 QC Sample: L1318731-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 274. | 331 | mg/kg | 19 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-3 QC Sample: L1318731-02 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | ND | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318780-01
Client ID: RC-SD-54-001-092313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/23/13 12:00
Date Received: 09/23/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 79.1 | | % | 0.100 | 0.100 | 1 | - | 09/24/13 09:47 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1318780
Report Date: 09/24/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG638540-1 QC Sample: L1318780-01 Client ID: RC-SD-54-001-092313 | | | | | | |
| Solids, Total | 79.1 | 79.4 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318780-01A | Amber 120ml unpreserved | A | N/A | 1.4 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318780-02A | Plastic 250ml HNO3 preserved | A | <2 | 1.4 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 24 of 27 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318875 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/26/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1318875-01 | RC-SD-60-001-092413 | PLOW SHOP POND | 09/24/13 15:00 |
| L1318875-02 | RC-SD-58-001-092413 | PLOW SHOP POND | 09/24/13 15:05 |
| L1318875-03 | RC-SD-57-001-092413 | PLOW SHOP POND | 09/24/13 15:10 |
| L1318875-04 | RC-SD-56-001-092413 | PLOW SHOP POND | 09/24/13 15:15 |
| L1318875-05 | RC-SD-59-001-092413 | PLOW SHOP POND | 09/24/13 15:20 |
| L1318875-06 | EB-092413-01 | PLOW SHOP POND | 09/24/13 15:45 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318875-01 through -05: The initial calibration blank and continuous calibration blanks have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13


Case Narrative (continued)

actions were taken. The results of the original analysis are reported.

L1318875-06: The initial calibration blank and continuous calibration blanks have concentrations above the LOD for arsenic. Since the sample was non detect for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/26/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-01
 Client ID: RC-SD-60-001-092413
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 97%

Date Collected: 09/24/13 15:00
 Date Received: 09/24/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 12.5 | Q | mg/kg | 0.033 | 0.004 | 2 | 09/25/13 15:00 | 09/26/13 11:29 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-02
 Client ID: RC-SD-58-001-092413
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 75%

Date Collected: 09/24/13 15:05
 Date Received: 09/24/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 32.9 | Q | mg/kg | 0.038 | 0.005 | 2 | 09/25/13 15:00 | 09/26/13 11:35 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-03
 Client ID: RC-SD-57-001-092413
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 59%

Date Collected: 09/24/13 15:10
 Date Received: 09/24/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 22.4 | Q | mg/kg | 0.048 | 0.006 | 2 | 09/25/13 15:00 | 09/26/13 11:36 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-04
 Client ID: RC-SD-56-001-092413
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 77%

Date Collected: 09/24/13 15:15
 Date Received: 09/24/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 5.56 | Q | mg/kg | 0.037 | 0.005 | 2 | 09/25/13 15:00 | 09/26/13 11:37 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-05
 Client ID: RC-SD-59-001-092413
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 94%

Date Collected: 09/24/13 15:20
 Date Received: 09/24/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 7.39 | Q | mg/kg | 0.033 | 0.004 | 2 | 09/25/13 15:00 | 09/26/13 11:38 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-06
 Client ID: EB-092413-01
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 09/24/13 15:45
 Date Received: 09/24/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | ND | Q | ug/l | 0.5000 | 0.0850 | 1 | 09/25/13 15:00 | 09/26/13 10:40 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG638976-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/25/13 15:00 | 09/26/13 11:28 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 06 Batch: WG638977-1 | | | | | | | | | | |
| Arsenic, Total | ND | | ug/l | 0.5000 | 0.0850 | 1 | 09/25/13 15:00 | 09/26/13 10:34 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG638976-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 06 Batch: WG638977-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 100 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG638976-4 WG638976-5 QC Sample: L1318875-01 Client ID: RC-SD-60-001-092413 | | | | | | | | | | | | |
| Arsenic, Total | 12.5 | 65.5 | 80.0 | 103 | | 75.2 | 96 | | 80-120 | 6 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG638977-4 QC Sample: L1318875-06 Client ID: EB-092413-01 | | | | | | | | | | | | |
| Arsenic, Total | ND | 500 | 483.4 | 97 | | - | - | | 80-120 | - | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1318875
Report Date: 09/26/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG638976-3 QC Sample: L1318875-01 Client ID: RC-SD-60-001-092413 | | | | | | |
| Arsenic, Total | 12.5 | 11.0 | mg/kg | 13 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG638977-3 QC Sample: L1318875-06 Client ID: EB-092413-01 | | | | | | |
| Arsenic, Total | ND | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-01
Client ID: RC-SD-60-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:00
Date Received: 09/24/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 97.2 | | % | 0.100 | 0.100 | 1 | - | 09/25/13 08:48 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-02
Client ID: RC-SD-58-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:05
Date Received: 09/24/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 75.0 | | % | 0.100 | 0.100 | 1 | - | 09/25/13 08:48 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-03
Client ID: RC-SD-57-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:10
Date Received: 09/24/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 58.8 | | % | 0.100 | 0.100 | 1 | - | 09/25/13 08:48 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-04
Client ID: RC-SD-56-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:15
Date Received: 09/24/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 76.9 | | % | 0.100 | 0.100 | 1 | - | 09/25/13 08:48 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-05
Client ID: RC-SD-59-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:20
Date Received: 09/24/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 93.5 | | % | 0.100 | 0.100 | 1 | - | 09/25/13 08:48 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1318875
Report Date: 09/26/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG638859-1 QC Sample: L1318875-01 Client ID: RC-SD-60-001-092413 | | | | | | |
| Solids, Total | 97.2 | 97.6 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318875-01A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318875-02A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318875-03A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318875-04A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318875-05A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1318875-06A | Plastic 250ml HNO3 preserved | A | <2 | 2.6 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂-B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319010 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/27/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1319010-01 | RC-SD-44-001-092513 | PLOW SHOP POND | 09/25/13 10:00 |
| L1319010-02 | RC-SD-35-001-092513 | PLOW SHOP POND | 09/25/13 10:30 |
| L1319010-03 | RC-SD-34-001-092513 | PLOW SHOP POND | 09/25/13 11:00 |
| L1319010-04 | FD-092513-01 | PLOW SHOP POND | 09/25/13 11:00 |
| L1319010-05 | EB-092513-01 | PLOW SHOP POND | 09/25/13 13:35 |
| L1319010-06 | RC-SD-25-001-092513 | PLOW SHOP POND | 09/25/13 14:55 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319010-01 through -04 and -06: The continuing calibration blanks have concentrations above the reporting limit for arsenic. Since the samples are >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319010-05: The initial calibration blank and continuing calibration blanks have concentrations above the

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1319010
Report Date: 09/27/13

Case Narrative (continued)

LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/27/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-01
 Client ID: RC-SD-44-001-092513
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 17%

Date Collected: 09/25/13 10:00
 Date Received: 09/25/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 197 | Q | mg/kg | 0.426 | 0.053 | 5 | 09/26/13 15:30 | 09/27/13 14:44 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-02
 Client ID: RC-SD-35-001-092513
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 16%

Date Collected: 09/25/13 10:30
 Date Received: 09/25/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 251 | Q | mg/kg | 0.471 | 0.058 | 5 | 09/26/13 15:30 | 09/27/13 14:45 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-03
 Client ID: RC-SD-34-001-092513
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 12%

Date Collected: 09/25/13 11:00
 Date Received: 09/25/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 506 | Q | mg/kg | 0.600 | 0.074 | 5 | 09/26/13 15:30 | 09/27/13 14:46 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-04
 Client ID: FD-092513-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 12%

Date Collected: 09/25/13 11:00
 Date Received: 09/25/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 492 | Q | mg/kg | 0.570 | 0.070 | 5 | 09/26/13 15:30 | 09/27/13 14:50 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-05
Client ID: EB-092513-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/25/13 13:35
Date Received: 09/25/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.1279 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 09/26/13 15:30 | 09/27/13 14:32 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-06
 Client ID: RC-SD-25-001-092513
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 38%

Date Collected: 09/25/13 14:55
 Date Received: 09/25/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 130 | Q | mg/kg | 0.178 | 0.022 | 5 | 09/26/13 15:30 | 09/27/13 14:53 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-04,06 Batch: WG639326-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 09/26/13 15:30 | 09/27/13 14:43 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 05 Batch: WG639329-1 | | | | | | | | | | |
| Arsenic, Total | 0.0896 | J | ug/l | 0.5000 | 0.0850 | 1 | 09/26/13 15:30 | 09/27/13 14:27 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04,06 Batch: WG639326-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 103 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG639329-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 101 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04,06 QC Batch ID: WG639326-4 WG639326-5 QC Sample: L1319010-03 Client ID: RC-SD-34-001-092513 | | | | | | | | | | | | |
| Arsenic, Total | 506. | 480 | 1020 | 107 | | 987 | 100 | | 80-120 | 3 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG639329-4 QC Sample: L1319010-05 Client ID: EB-092513-01 | | | | | | | | | | | | |
| Arsenic, Total | 0.1279J | 500 | 519.1 | 104 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04,06 QC Batch ID: WG639326-3 QC Sample: L1319010-03 Client ID: RC-SD-34-001-092513 | | | | | | |
| Arsenic, Total | 506. | 496 | mg/kg | 2 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG639329-3 QC Sample: L1319010-05 Client ID: EB-092513-01 | | | | | | |
| Arsenic, Total | 0.1279J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-01
Client ID: RC-SD-44-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 10:00
Date Received: 09/25/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 16.5 | | % | 0.100 | 0.100 | 1 | - | 09/26/13 07:55 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-02
Client ID: RC-SD-35-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 10:30
Date Received: 09/25/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 15.8 | | % | 0.100 | 0.100 | 1 | - | 09/26/13 07:55 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-03
Client ID: RC-SD-34-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 11:00
Date Received: 09/25/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.9 | | % | 0.100 | 0.100 | 1 | - | 09/26/13 07:55 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-04
Client ID: FD-092513-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 11:00
Date Received: 09/25/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.8 | | % | 0.100 | 0.100 | 1 | - | 09/26/13 07:55 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-06
Client ID: RC-SD-25-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 14:55
Date Received: 09/25/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 37.8 | | % | 0.100 | 0.100 | 1 | - | 09/26/13 07:55 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1319010
Report Date: 09/27/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-04,06 QC Batch ID: WG639111-1 QC Sample: L1319010-03 Client ID: RC-SD-34-001-092513 | | | | | | |
| Solids, Total | 11.9 | 11.8 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319010-01A | Amber 120ml unpreserved | A | N/A | 2.0 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319010-02A | Amber 120ml unpreserved | A | N/A | 2.0 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319010-03A | Amber 120ml unpreserved | A | N/A | 2.0 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319010-03B | Amber 100ml unpreserved | A | N/A | 2.0 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319010-03C | Amber 100ml unpreserved | A | N/A | 2.0 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319010-04A | Amber 120ml unpreserved | A | N/A | 2.0 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319010-05A | Plastic 250ml HNO3 preserved | A | <2 | 2.0 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1319010-06A | Amber 120ml unpreserved | A | N/A | 2.0 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



CHAIN OF CUSTODY

PAGE 1 OF 1

Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: Devens

Client Information

Client: Sovereign Consulting Inc.
 Address: 4 Open Square Way, Ste. 307
 Holyoke, MA 01040
 Phone: 413-540-0650

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

Fax: 413-540-0656

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Email: RLeary@sovcon.com

24 HR TAT

☐ These samples have been Previously analyzed by Alpha

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab:

ALPHA Job #: L1319010

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do
 Preservation
☐ Lab to do
 (Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only) Sample ID Collection Date Time Sample Matrix Sampler's Initials

| | | | | | | | | | | | | | | | | | | | |
|-----------|---------------------|---------|------|----|----|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------|
| 4319010-1 | RC-SD-44-001-092513 | 9/25/13 | 1000 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| 2 | RC-SD-35-001-092513 | | 1030 | SD | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| 3 | RC-SD-34-001-092513 | | 1100 | SD | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | ms/msd 3 |
| 4 | FD-092513-01 | | 1100 | SD | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| 5 | EB-092513-01 | | 1335 | AG | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| 6 | RC-SD-25-001-092513 | | 1455 | SD | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
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PLEASE ANSWER QUESTIONS ABOVE!

Container Type

Preservative

IS YOUR PROJECT
 MA MCP or CT RCP?

FORM NO: 01-01 (I)
 (rev. 5-JAN-12)

Relinquished By:

Date/Time

Received By:

Date/Time

9/25/13 1600 9/25/13 1730 9/25/13 1730
 9/26/13 0500 9/26/13 0500

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319573 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/03/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1319573-01 | RC-SD-36-001-100213 | PLOW SHOP POND | 10/02/13 11:00 |
| L1319573-02 | RC-SD-37-001-100213 | PLOW SHOP POND | 10/02/13 11:05 |
| L1319573-03 | RC-SD-38-001-100213 | PLOW SHOP POND | 10/02/13 11:10 |
| L1319573-04 | RC-SD-39-001-100213 | PLOW SHOP POND | 10/02/13 11:15 |
| L1319573-05 | RC-SD-45-001-100213 | PLOW SHOP POND | 10/02/13 11:20 |
| L1319573-06 | RC-SD-46-001-100213 | PLOW SHOP POND | 10/02/13 11:25 |
| L1319573-07 | RC-SD-47-001-100213 | PLOW SHOP POND | 10/02/13 11:35 |
| L1319573-08 | FD-100213-01 | PLOW SHOP POND | 10/02/13 11:30 |
| L1319573-09 | EB-100213-01 | PLOW SHOP POND | 10/02/13 11:40 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319573-01 through -08: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319573-09: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1319573
Report Date: 10/03/13

Case Narrative (continued)

for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/03/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-01
 Client ID: RC-SD-36-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 9%

Date Collected: 10/02/13 11:00
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 195 | Q | mg/kg | 0.741 | 0.092 | 5 | 10/02/13 14:00 | 10/03/13 11:56 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-02
 Client ID: RC-SD-37-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 7%

Date Collected: 10/02/13 11:05
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 291 | Q | mg/kg | 1.01 | 0.124 | 5 | 10/02/13 14:00 | 10/03/13 11:57 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-03
 Client ID: RC-SD-38-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/02/13 11:10
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 93.9 | Q | mg/kg | 0.674 | 0.083 | 5 | 10/02/13 14:00 | 10/03/13 11:58 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-04
 Client ID: RC-SD-39-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/02/13 11:15
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 110 | Q | mg/kg | 0.646 | 0.080 | 5 | 10/02/13 14:00 | 10/03/13 11:59 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-05
 Client ID: RC-SD-45-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 31%

Date Collected: 10/02/13 11:20
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 23.7 | Q | mg/kg | 0.220 | 0.027 | 5 | 10/02/13 14:00 | 10/03/13 12:01 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-06
 Client ID: RC-SD-46-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/02/13 11:25
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 156 | Q | mg/kg | 0.683 | 0.085 | 5 | 10/02/13 14:00 | 10/03/13 12:02 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-07
 Client ID: RC-SD-47-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 9%

Date Collected: 10/02/13 11:35
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 127 | Q | mg/kg | 0.761 | 0.094 | 5 | 10/02/13 14:00 | 10/03/13 12:05 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-08
 Client ID: FD-100213-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/02/13 11:30
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 163 | Q | mg/kg | 0.690 | 0.085 | 5 | 10/02/13 14:00 | 10/03/13 12:05 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-09
Client ID: EB-100213-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/02/13 11:40
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.2095 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 10/02/13 15:24 | 10/03/13 11:02 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG640718-1 | | | | | | | | | | |
| Arsenic, Total | 0.012 | J | mg/kg | 0.050 | 0.006 | 2 | 10/02/13 14:00 | 10/03/13 11:47 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 09 Batch: WG640759-1 | | | | | | | | | | |
| Arsenic, Total | 0.1544 | J | ug/l | 0.5000 | 0.0850 | 1 | 10/02/13 15:24 | 10/03/13 10:57 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG640718-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 108 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 09 Batch: WG640759-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 100 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640718-4 WG640718-5 QC Sample: L1319527-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 187. | 110 | 309 | 111 | | 306 | 108 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640718-6 WG640718-7 QC Sample: L1319573-06 Client ID: RC-SD-46-001-100213 | | | | | | | | | | | | |
| Arsenic, Total | 156. | 547 | 696 | 99 | | 744 | 108 | | 80-120 | 7 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG640759-4 QC Sample: L1319573-09 Client ID: EB-100213-01 | | | | | | | | | | | | |
| Arsenic, Total | 0.2095J | 500 | 513.7 | 103 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640718-3 QC Sample: L1319527-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 187. | 195 | mg/kg | 4 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG640759-3 QC Sample: L1319573-09 Client ID: EB-100213-01 | | | | | | |
| Arsenic, Total | 0.2095J | 0.1224J | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-01
Client ID: RC-SD-36-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:00
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.42 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-02
Client ID: RC-SD-37-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:05
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 6.94 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-03
Client ID: RC-SD-38-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:10
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.87 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-04
Client ID: RC-SD-39-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:15
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.3 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-05
Client ID: RC-SD-45-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:20
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 30.9 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-06
Client ID: RC-SD-46-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:25
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.73 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-07
Client ID: RC-SD-47-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:35
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 8.83 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-08
Client ID: FD-100213-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:30
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.95 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 15:26 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1319573
Report Date: 10/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640763-1 QC Sample: L1319573-06 Client ID: RC-SD-46-001-100213 | | | | | | |
| Solids, Total | 9.73 | 10.2 | % | 5 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319573-01A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-02A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-03A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-04A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-05A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-06A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-06B | Amber 100ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-06C | Amber 100ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-07A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-08A | Amber 120ml unpreserved | A | N/A | 2.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319573-09A | Plastic 250ml HNO3 preserved | A | <2 | 2.6 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

PAGE 2 OF 2



Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR

Due Date: _____ Time: _____

ALPHA Job #: 41319573

Billing Information

☐ Same as Client info PO #:

| Criteria |
|----------|
|----------|

| | | |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Are MCP Analytical Methods Required? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Are CT RCP (Reasonable Confidence Protocols) Required? |

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Total Arsenic by 6020

[illegible]

Sample Specific Comments

[illegible]

Relinquished By:

Date/Time

Received By:

Date/Time

Relinquish

Cep² POK Alde
HOM

| | |
|--|--------------|
| | Date/Time |
| | 10.2.13 |
| | 10-443, 122V |
| | 17/2/13 1317 |

Received By: *Pat Lund*
15M
Shaw

| | Date/Time |
|----|---------------|
| 12 | 11/30 |
| 19 | 12/11/12 1145 |
| 10 | 12/13 1317 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319660 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/04/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1319660-01 | RC-SD-23-001-100213 | PLOW SHOP POND | 10/02/13 15:35 |
| L1319660-02 | RC-SD-24-001-100213 | PLOW SHOP POND | 10/02/13 15:40 |
| L1319660-03 | RC-SD-29-001-100213 | PLOW SHOP POND | 10/02/13 15:42 |
| L1319660-04 | RC-SD-30-001-100213 | PLOW SHOP POND | 10/02/13 15:44 |
| L1319660-05 | RC-SD-31-001-100213 | PLOW SHOP POND | 10/02/13 15:46 |
| L1319660-06 | RC-22-001-100213 | PLOW SHOP POND | 10/02/13 15:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319660-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/04/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-01
 Client ID: RC-SD-23-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/02/13 15:35
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 120 | Q | mg/kg | 0.284 | 0.035 | 2 | 10/03/13 15:30 | 10/04/13 10:22 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-02
 Client ID: RC-SD-24-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/02/13 15:40
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 73.8 | Q | mg/kg | 0.264 | 0.033 | 2 | 10/03/13 15:30 | 10/04/13 10:26 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-03
 Client ID: RC-SD-29-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/02/13 15:42
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 157 | Q | mg/kg | 0.264 | 0.033 | 2 | 10/03/13 15:30 | 10/04/13 10:27 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-04
 Client ID: RC-SD-30-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/02/13 15:44
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 133 | Q | mg/kg | 0.285 | 0.035 | 2 | 10/03/13 15:30 | 10/04/13 10:28 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-05
 Client ID: RC-SD-31-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/02/13 15:46
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 95.2 | Q | mg/kg | 0.254 | 0.031 | 2 | 10/03/13 15:30 | 10/04/13 10:30 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-06
 Client ID: RC-22-001-100213
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/02/13 15:30
 Date Received: 10/02/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 157 | Q | mg/kg | 0.288 | 0.036 | 2 | 10/03/13 15:30 | 10/04/13 10:31 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641081-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 10/03/13 15:30 | 10/04/13 10:20 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641081-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641081-4 WG641081-5 QC Sample: L1319660-01 Client ID: RC-SD-23-001-100213 | | | | | | | | | | | | |
| Arsenic, Total | 120. | 565 | 712 | 105 | | 717 | 105 | | 80-120 | 1 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1319660
Report Date: 10/04/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641081-3 QC Sample: L1319660-01 Client ID: RC-SD-23-001-100213 | | | | | | |
| Arsenic, Total | 120. | 116 | mg/kg | 3 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-01
Client ID: RC-SD-23-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:35
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.83 | | % | 0.100 | 0.100 | 1 | - | 10/03/13 10:42 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-02
Client ID: RC-SD-24-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:40
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.9 | | % | 0.100 | 0.100 | 1 | - | 10/03/13 10:42 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-03
Client ID: RC-SD-29-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:42
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.9 | | % | 0.100 | 0.100 | 1 | - | 10/03/13 10:42 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-04
Client ID: RC-SD-30-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:44
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.73 | | % | 0.100 | 0.100 | 1 | - | 10/03/13 10:42 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-05
Client ID: RC-SD-31-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:46
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.2 | | % | 0.100 | 0.100 | 1 | - | 10/03/13 10:42 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-06
Client ID: RC-22-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:30
Date Received: 10/02/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.66 | | % | 0.100 | 0.100 | 1 | - | 10/03/13 10:42 | 30,2540G | JW |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG640961-1 QC Sample: L1319660-01 Client ID: RC-SD-23-001-100213 | | | | | | |
| Solids, Total | 9.83 | 9.82 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319660-01A | Amber 120ml unpreserved | A | N/A | 3.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319660-02A | Amber 120ml unpreserved | A | N/A | 3.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319660-03A | Amber 120ml unpreserved | A | N/A | 3.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319660-04A | Amber 120ml unpreserved | A | N/A | 3.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319660-05A | Amber 120ml unpreserved | A | N/A | 3.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319660-06A | Amber 120ml unpreserved | A | N/A | 3.3 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S₂-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B₅+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 32 of 35 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319709 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/07/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1319709-01 | RC-SD-19-001-100313 | PLOW SHOP POND | 10/03/13 11:00 |
| L1319709-02 | RC-SD-20-001-100313 | PLOW SHOP POND | 10/03/13 11:05 |
| L1319709-03 | RC-SD-21-001-100313 | PLOW SHOP POND | 10/03/13 11:10 |
| L1319709-04 | RC-SD-26-001-100313 | PLOW SHOP POND | 10/03/13 11:15 |
| L1319709-05 | RC-SD-27-001-100313 | PLOW SHOP POND | 10/03/13 11:20 |
| L1319709-06 | RC-SD-28-001-100313 | PLOW SHOP POND | 10/03/13 11:25 |
| L1319709-07 | FD-100313-001 | PLOW SHOP POND | 10/03/13 11:25 |
| L1319709-08 | EB-100313-01 | PLOW SHOP POND | 10/03/13 11:35 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319709-01 through -07: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1319709
Report Date: 10/07/13

Case Narrative (continued)

L1319709-08: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the associated sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/07/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-01
 Client ID: RC-SD-19-001-100313
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/03/13 11:00
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 117 | Q | mg/kg | 0.274 | 0.034 | 2 | 10/03/13 15:30 | 10/04/13 10:32 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-02
 Client ID: RC-SD-20-001-100313
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/03/13 11:05
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 185 | Q | mg/kg | 0.267 | 0.033 | 2 | 10/03/13 15:30 | 10/04/13 10:33 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-03
Client ID: RC-SD-21-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 8%

Date Collected: 10/03/13 11:10
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 185 | Q | mg/kg | 0.320 | 0.040 | 2 | 10/03/13 15:30 | 10/04/13 10:33 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-04
 Client ID: RC-SD-26-001-100313
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/03/13 11:15
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 164 | Q | mg/kg | 0.244 | 0.030 | 2 | 10/03/13 15:30 | 10/04/13 10:34 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-05
 Client ID: RC-SD-27-001-100313
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 7%

Date Collected: 10/03/13 11:20
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 657 | Q | mg/kg | 0.388 | 0.048 | 2 | 10/03/13 15:30 | 10/04/13 10:35 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-06
 Client ID: RC-SD-28-001-100313
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 12%

Date Collected: 10/03/13 11:25
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 104 | Q | mg/kg | 0.242 | 0.030 | 2 | 10/03/13 15:30 | 10/04/13 10:36 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-07
 Client ID: FD-100313-001
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/03/13 11:25
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 166 | Q | mg/kg | 0.261 | 0.032 | 2 | 10/03/13 15:30 | 10/04/13 10:40 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-08
Client ID: EB-100313-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/03/13 11:35
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.1211 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 10/03/13 15:30 | 10/04/13 10:09 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG641081-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 10/03/13 15:30 | 10/04/13 10:20 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 08 Batch: WG641108-1 | | | | | | | | | | |
| Arsenic, Total | 0.1374 | J | ug/l | 0.5000 | 0.0850 | 1 | 10/03/13 15:30 | 10/04/13 10:04 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG641081-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08 Batch: WG641108-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 100 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641081-4 WG641081-5 QC Sample: L1319660-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 120. | 565 | 712 | 105 | | 717 | 105 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641081-6 WG641081-7 QC Sample: L1319709-06 Client ID: RC-SD-28-001-100313 | | | | | | | | | | | | |
| Arsenic, Total | 104. | 480 | 583 | 100 | | 588 | 101 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG641108-4 QC Sample: L1319709-08 Client ID: EB-100313-01 | | | | | | | | | | | | |
| Arsenic, Total | 0.1211J | 500 | 499.2 | 100 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641081-3 QC Sample: L1319660-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 120. | 116 | mg/kg | 3 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG641108-3 QC Sample: L1319709-08 Client ID: EB-100313-01 | | | | | | |
| Arsenic, Total | 0.1211J | 0.0965J | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-01
Client ID: RC-SD-19-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:00
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.1 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:14 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-02
Client ID: RC-SD-20-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:05
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.4 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:14 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-03
Client ID: RC-SD-21-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:10
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 8.30 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:14 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-04
Client ID: RC-SD-26-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:15
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.0 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:14 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-05
Client ID: RC-SD-27-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:20
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 7.11 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:14 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-06
Client ID: RC-SD-28-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:25
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.5 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:14 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-07
Client ID: FD-100313-001
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:25
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.6 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:14 | 30,2540G | JW |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641311-1 QC Sample: L1319709-06 Client ID: RC-SD-28-001-100313 | | | | | | |
| Solids, Total | 11.5 | 11.5 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319709-01A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-02A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-03A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-04A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-05A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-06A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-06B | Amber 100ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-06C | Amber 100ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-07A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319709-08A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319783 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/07/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1319783-01 | RC-SD-13-001-100313 | Not Specified | 10/03/13 14:40 |
| L1319783-02 | RC-SD-18-001-100313 | Not Specified | 10/03/13 14:50 |
| L1319783-03 | RC-SD-10-001-100313 | Not Specified | 10/03/13 15:30 |
| L1319783-04 | RC-SD-14-001-100313 | Not Specified | 10/03/13 15:35 |
| L1319783-05 | RC-SD-15-001-100313 | Not Specified | 10/03/13 15:40 |
| L1319783-06 | RC-SD-16-001-100313 | Not Specified | 10/03/13 15:45 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319783-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/07/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-01
 Client ID: RC-SD-13-001-100313
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 26%

Date Collected: 10/03/13 14:40
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 221 | Q | mg/kg | 0.270 | 0.033 | 5 | 10/04/13 17:00 | 10/07/13 11:18 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-02
 Client ID: RC-SD-18-001-100313
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 18%

Date Collected: 10/03/13 14:50
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 291 | Q | mg/kg | 0.371 | 0.046 | 5 | 10/04/13 17:00 | 10/07/13 11:22 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-03
 Client ID: RC-SD-10-001-100313
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/03/13 15:30
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 449 | Q | mg/kg | 0.271 | 0.034 | 2 | 10/04/13 17:00 | 10/07/13 11:07 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-04
 Client ID: RC-SD-14-001-100313
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/03/13 15:35
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 244 | Q | mg/kg | 0.272 | 0.034 | 2 | 10/04/13 17:00 | 10/07/13 11:08 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-05
 Client ID: RC-SD-15-001-100313
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/03/13 15:40
 Date Received: 10/03/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 101 | Q | mg/kg | 0.268 | 0.033 | 2 | 10/04/13 17:00 | 10/07/13 11:09 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-06
Client ID: RC-SD-16-001-100313
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/03/13 15:45
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 232 | Q | mg/kg | 0.274 | 0.034 | 2 | 10/04/13 17:00 | 10/07/13 11:10 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641401-1 | | | | | | | | | | |
| Arsenic, Total | 0.023 | J | mg/kg | 0.050 | 0.006 | 2 | 10/04/13 17:00 | 10/07/13 10:59 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641401-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-4 WG641401-5 QC Sample: L1319783-01 Client ID: RC-SD-13-001-100313 | | | | | | | | | | | | |
| Arsenic, Total | 221. | 214 | 434 | 99 | | 427 | 96 | | 80-120 | 2 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1319783
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-3 QC Sample: L1319783-01 Client ID: RC-SD-13-001-100313 | | | | | | |
| Arsenic, Total | 221. | 224 | mg/kg | 1 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-01
Client ID: RC-SD-13-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 14:40
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 26.2 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:59 | 30,2540G | CT |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-02
Client ID: RC-SD-18-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 14:50
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 18.2 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:59 | 30,2540G | CT |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-03
Client ID: RC-SD-10-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:30
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.3 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:59 | 30,2540G | CT |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-04
Client ID: RC-SD-14-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:35
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.4 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:59 | 30,2540G | CT |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-05
Client ID: RC-SD-15-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:40
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.9 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:59 | 30,2540G | CT |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-06
Client ID: RC-SD-16-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:45
Date Received: 10/03/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.82 | | % | 0.100 | 0.100 | 1 | - | 10/04/13 12:59 | 30,2540G | CT |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641324-1 QC Sample: L1319783-01 Client ID: RC-SD-13-001-100313 | | | | | | |
| Solids, Total | 26.2 | 28.7 | % | 9 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319783-01A | Amber 120ml unpreserved | A | N/A | 4.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319783-02A | Amber 120ml unpreserved | A | N/A | 4.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319783-03A | Amber 120ml unpreserved | A | N/A | 4.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319783-04A | Amber 120ml unpreserved | A | N/A | 4.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319783-05A | Amber 120ml unpreserved | A | N/A | 4.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319783-06A | Amber 120ml unpreserved | A | N/A | 4.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 32 of 35 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

MANSFIELD CHAIN OF CUSTODY

PAGE OF



Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: DEVENS

Client Information

Project Location:

Client: Sovereign Consulting Inc.

Project #: AC001.005

Address: 4 OPEN SQUARE WAY

Project Manager: RACHEL LEARY

HOLYOKE MA

ALPHA Quote #:

Phone: 413-540-0650

Turn-Around Time

Fax: ☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Email: RLEARY@SOVCON.COM

☐ These samples have been Previously analyzed by Alpha

Due Date:

Time:

24 HR TAT

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

Date Rec'd in Lab:

ALPHA Job #: L1319783

Report Information Data Deliverables

☐ FAX☒ EMAIL☒ ADEx☐ Add'l Deliverables

Billing Information

☒ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

ANALYSIS

Total Arsenic by 60220

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

| ALPHA Lab ID | Sample ID | Collection | Sample | Sampler's |
|--------------|-----------|------------|--------|-----------|
|--------------|-----------|------------|--------|-----------|

| | | | | | |
|----|---------------------|---------|------|----|----|
| -1 | RC-SD-13-001-100313 | 10-3-13 | 1440 | SD | EF |
| -2 | RC-SD-13-001-100313 | | 1450 | | |
| -3 | RC-SD-10-001-100313 | | 1530 | | |
| -4 | RC-SD-14-001-100313 | | 1535 | | |
| -5 | RC-SD-15-001-100313 | | 1540 | | |
| -6 | RC-SD-16-001-100313 | | 1545 | | |

Container Type

P

Preservative

C

Relinquished By:

Date/Time

Received By:

Date/Time



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319814 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/07/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|-----------------------|----------------------------|---------------------------------|
| L1319814-01 | RC-SD-06-001-100413 | Not Specified | 10/04/13 11:30 |
| L1319814-02 | RC-SD-07-001-100413 | Not Specified | 10/04/13 11:35 |
| L1319814-03 | RC-SD-08-001-100413 | Not Specified | 10/04/13 11:40 |
| L1319814-04 | RC-SD-11-001-100413 | Not Specified | 10/04/13 11:45 |
| L1319814-05 | RC-SD-12-001-100413 | Not Specified | 10/04/13 11:50 |
| L1319814-06 | RC-SD-17-001-100413 | Not Specified | 10/04/13 11:55 |
| L1319814-07 | EB-100413-001 | Not Specified | 10/04/13 12:00 |
| L1319814-08 | SA71-SD-23-001-100413 | Not Specified | 10/04/13 11:35 |
| L1319814-09 | SA71-SD-22-001-100413 | Not Specified | 10/04/13 11:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319814-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319814-07: The initial calibration blank and continuing calibration blank have concentrations above the

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative (continued)

reporting limit for arsenic. Since the samples were below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.


The WG641402-5 MSD recovery, performed on L1319814-08, is below the acceptance criteria for antimony (34%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1319814-08) should be qualified as "J" for this analyte.

The WG641402-4/-5 MS/MSD RPD, performed on L1319814-08, is above the acceptance criteria for antimony (21%).

The WG641402-3 Laboratory Duplicate RPD, performed on L1319814-08, is outside the acceptance criteria for antimony (101%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/07/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
 Client ID: RC-SD-06-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/04/13 11:30
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 399 | Q | mg/kg | 0.278 | 0.034 | 2 | 10/04/13 17:00 | 10/07/13 11:11 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-02
 Client ID: RC-SD-07-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/04/13 11:35
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 128 | Q | mg/kg | 0.258 | 0.032 | 2 | 10/04/13 17:00 | 10/07/13 11:11 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
 Client ID: RC-SD-08-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/04/13 11:40
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 98.0 | Q | mg/kg | 0.268 | 0.033 | 2 | 10/04/13 17:00 | 10/07/13 11:14 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-04
 Client ID: RC-SD-11-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/04/13 11:45
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 65.2 | Q | mg/kg | 0.269 | 0.033 | 2 | 10/04/13 17:00 | 10/07/13 11:15 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
 Client ID: RC-SD-12-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/04/13 11:50
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 78.3 | Q | mg/kg | 0.259 | 0.032 | 2 | 10/04/13 17:00 | 10/07/13 11:16 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
 Client ID: RC-SD-17-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 9%

Date Collected: 10/04/13 11:55
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 113 | Q | mg/kg | 0.284 | 0.035 | 2 | 10/04/13 17:00 | 10/07/13 11:16 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-07
Client ID: EB-100413-001
Sample Location: Not Specified
Matrix: Water

Date Collected: 10/04/13 12:00
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1185 | J | ug/l | 0.5000 | 0.0260 | 1 | | 10/07/13 11:56 | EPA 3020A | 1,6020A | PD |
| Arsenic, Total | 0.1907 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 10/04/13 16:40 | 10/07/13 10:32 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
 Client ID: SA71-SD-23-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 91%

Date Collected: 10/04/13 11:35
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.64 | | mg/kg | 0.035 | 0.006 | 2 | 10/04/13 17:00 | 10/07/13 12:06 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
 Client ID: SA71-SD-22-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 74%

Date Collected: 10/04/13 11:30
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 5.98 | | mg/kg | 0.042 | 0.007 | 2 | 10/04/13 17:00 | 10/07/13 12:10 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641398-1 | | | | | | | | | | |
| Arsenic, Total | 0.1797 | J | ug/l | 0.5000 | 0.0850 | 1 | 10/04/13 16:40 | 10/07/13 10:27 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641399-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 10/04/13 16:40 | 10/07/13 11:54 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641401-1 | | | | | | | | | | |
| Arsenic, Total | 0.023 | J | mg/kg | 0.050 | 0.006 | 2 | 10/04/13 17:00 | 10/07/13 10:59 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 08-09 Batch: WG641402-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 10/04/13 17:00 | 10/07/13 12:05 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641398-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641399-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641401-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08-09 Batch: WG641402-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-4 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | | | | | | | |
| Arsenic, Total | 0.1907J | 500 | 501.1 | 100 | | - | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-4 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | | | | | | | |
| Antimony, Total | 0.1185J | 40 | 42.83 | 107 | | - | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-4 WG641401-5 QC Sample: L1319783-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 221. | 214 | 434 | 99 | | 427 | 96 | | 80-120 | 2 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-4 WG641402-5 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413 | | | | | | | | | | | | |
| Antimony, Total | 2.64 | 1.41 | 3.85 | 86 | | 3.12 | 34 | Q | 80-120 | 21 | Q | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-3 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | |
| Arsenic, Total | 0.1907J | 0.1441J | ug/l | NC | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-3 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | |
| Antimony, Total | 0.1185J | ND | ug/l | NC | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-3 QC Sample: L1319783-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 221. | 224 | mg/kg | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-3 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413 | | | | | | |
| Antimony, Total | 2.64 | 8.04 | mg/kg | 101 | Q | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
Client ID: RC-SD-06-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.0 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-02
Client ID: RC-SD-07-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.4 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
Client ID: RC-SD-08-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:40
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.3 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-04
Client ID: RC-SD-11-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:45
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.2 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
Client ID: RC-SD-12-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:50
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.8 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
Client ID: RC-SD-17-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:55
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.37 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
Client ID: SA71-SD-23-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 91.3 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
Client ID: SA71-SD-22-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 74.4 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641760-1 QC Sample: L1319814-01 Client ID: RC-SD-06-001-100413 | | | | | | |
| Solids, Total | 10.0 | 10.2 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|---|
| L1319814-01A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-02A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-03A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-04A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-05A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-06A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-07A | Plastic 250ml HNO3 preserved | A | <2 | 2.2 | Y | Absent | A2-DOD-SB-6020T(180),A2-DOD-AS-6020T(180) |
| L1319814-08A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1319814-09A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 38 of 41 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

[illegible]



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319995 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/08/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1319995-01 | RC-SD-01-001-100713 | PLOW SHOP POND | 10/07/13 10:00 |
| L1319995-02 | RC-SD-02-001-100713 | PLOW SHOP POND | 10/07/13 10:05 |
| L1319995-03 | RC-SD-03-001-100713 | PLOW SHOP POND | 10/07/13 10:10 |
| L1319995-04 | RC-SD-04-001-100713 | PLOW SHOP POND | 10/07/13 10:15 |
| L1319995-05 | RC-SD-05-001-100713 | PLOW SHOP POND | 10/07/13 10:20 |
| L1319995-06 | FD-100713-01 | PLOW SHOP POND | 10/07/13 10:00 |
| L1319995-07 | EB-100713-01 | PLOW SHOP POND | 10/07/13 10:30 |
| L1319995-08 | RC-SD-09-001-100713 | PLOW SHOP POND | 10/07/13 13:45 |
| L1319995-09 | RC-SD-40-002-100713 | PLOW SHOP POND | 10/07/13 14:00 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319995-01 through -06, -08 and -09: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319995-07: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1319995
Report Date: 10/08/13

Case Narrative (continued)

for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/08/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-01
 Client ID: RC-SD-01-001-100713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/07/13 10:00
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 174 | Q | mg/kg | 0.276 | 0.034 | 2 | 10/07/13 20:00 | 10/08/13 11:55 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-02
 Client ID: RC-SD-02-001-100713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 9%

Date Collected: 10/07/13 10:05
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 177 | Q | mg/kg | 0.292 | 0.036 | 2 | 10/07/13 20:00 | 10/08/13 11:59 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-03
 Client ID: RC-SD-03-001-100713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/07/13 10:10
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 302 | Q | mg/kg | 0.262 | 0.032 | 2 | 10/07/13 20:00 | 10/08/13 12:00 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-04
 Client ID: RC-SD-04-001-100713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/07/13 10:15
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 163 | Q | mg/kg | 0.277 | 0.034 | 2 | 10/07/13 20:00 | 10/08/13 12:01 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-05
 Client ID: RC-SD-05-001-100713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 21%

Date Collected: 10/07/13 10:20
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 86.4 | Q | mg/kg | 0.130 | 0.016 | 2 | 10/07/13 20:00 | 10/08/13 12:04 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-06
 Client ID: FD-100713-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/07/13 10:00
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 163 | Q | mg/kg | 0.258 | 0.032 | 2 | 10/07/13 20:00 | 10/08/13 12:04 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-07
Client ID: EB-100713-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/07/13 10:30
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 0.0909 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 10/07/13 20:00 | 10/08/13 10:44 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-08
 Client ID: RC-SD-09-001-100713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 36%

Date Collected: 10/07/13 13:45
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 89.2 | Q | mg/kg | 0.076 | 0.009 | 2 | 10/07/13 20:00 | 10/08/13 12:05 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-09
 Client ID: RC-SD-40-002-100713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 54%

Date Collected: 10/07/13 14:00
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 58.6 | Q | mg/kg | 0.050 | 0.006 | 2 | 10/07/13 20:00 | 10/08/13 12:06 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641884-1 | | | | | | | | | | |
| Arsenic, Total | 0.1134 | J | ug/l | 0.5000 | 0.0850 | 1 | 10/07/13 20:00 | 10/08/13 10:38 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-06,08-09 Batch: WG641886-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 10/07/13 20:00 | 10/08/13 11:49 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641884-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 101 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06,08-09 Batch: WG641886-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 101 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641884-4 QC Sample: L1319995-07 Client ID: EB-100713-01 | | | | | | | | | | | | |
| Arsenic, Total | 0.0909J | 500 | 503.3 | 101 | | - | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641886-4 WG641886-5 QC Sample: L1319995-01 Client ID: RC-SD-01-001-100713 | | | | | | | | | | | | |
| Arsenic, Total | 174. | 550 | 765 | 107 | | 742 | 103 | | 80-120 | 3 | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641884-3 QC Sample: L1319995-07 Client ID: EB-100713-01 | | | | | | |
| Arsenic, Total | 0.0909J | 0.1347J | ug/l | NC | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641886-3 QC Sample: L1319995-01 Client ID: RC-SD-01-001-100713 | | | | | | |
| Arsenic, Total | 174. | 170 | mg/kg | 2 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-01
Client ID: RC-SD-01-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:00
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.1 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-02
Client ID: RC-SD-02-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:05
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.46 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-03
Client ID: RC-SD-03-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:10
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.3 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-04
Client ID: RC-SD-04-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:15
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.74 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-05
Client ID: RC-SD-05-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:20
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 20.5 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-06
Client ID: FD-100713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:00
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.6 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-08
Client ID: RC-SD-09-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:45
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 35.5 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-09
Client ID: RC-SD-40-002-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 14:00
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 53.8 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 10:45 | 30,2540G | JW |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG642066-1 QC Sample: L1319995-01 Client ID: RC-SD-01-001-100713 | | | | | | |
| Solids, Total | 10.1 | 10.3 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319995-01A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-01B | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-01C | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-02A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-03A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-04A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-05A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-06A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-07A | Plastic 250ml HNO3 preserved | A | <2 | 3.6 | Y | Absent | A2-DOD-AS-6020T(180) |
| L1319995-08A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319995-09A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1320115 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/10/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1320115-01 | RC-SD-41-002-100813 | PLOW SHOP POND | 10/08/13 13:15 |
| L1320115-02 | RC-SD-48-001-100813 | PLOW SHOP POND | 10/08/13 15:15 |
| L1320115-03 | FD-100813-01 | PLOW SHOP POND | 10/08/13 15:15 |
| L1320115-04 | EB-100813-01 | PLOW SHOP POND | 10/08/13 15:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

L1320115-01 through -03: The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1320115-01 through -03: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG642366-1 Method Blank, associated with L1320115-04, has a concentration > ½ RL and < RL and "J"

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1320115
Report Date: 10/10/13

Case Narrative (continued)

qualified for arsenic. The associated field sample results are "B" qualified if the concentrations are $> \frac{1}{2}$ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/10/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-01
 Client ID: RC-SD-41-002-100813
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 30%

Date Collected: 10/08/13 13:15
 Date Received: 10/08/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 228 | Q | mg/kg | 0.225 | 0.028 | 5 | 10/09/13 16:41 | 10/10/13 11:15 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-02
 Client ID: RC-SD-48-001-100813
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 87%

Date Collected: 10/08/13 15:15
 Date Received: 10/08/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 15.0 | Q | mg/kg | 0.031 | 0.004 | 2 | 10/09/13 16:41 | 10/10/13 11:12 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-03
 Client ID: FD-100813-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 87%

Date Collected: 10/08/13 15:15
 Date Received: 10/08/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 16.9 | Q | mg/kg | 0.032 | 0.004 | 2 | 10/09/13 16:41 | 10/10/13 11:12 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-04
Client ID: EB-100813-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/08/13 15:30
Date Received: 10/08/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 0.3270 | JB | ug/l | 0.5000 | 0.1610 | 1 | 10/09/13 07:44 | 10/09/13 11:28 | EPA 3005A | 1,6020A | KL |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 04 Batch: WG642366-1 | | | | | | | | | | |
| Arsenic, Total | 0.4100 | J | ug/l | 0.5000 | 0.1610 | 1 | 10/09/13 07:44 | 10/09/13 10:37 | 1,6020A | KL |

Prep Information

Digestion Method: EPA 3005A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG642616-1 | | | | | | | | | | |
| Arsenic, Total | 0.015 | J | mg/kg | 0.050 | 0.006 | 2 | 10/09/13 16:41 | 10/10/13 11:04 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 04 Batch: WG642366-2 | | | | | | | | |
| Arsenic, Total | 92 | | - | | 80-120 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG642616-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 04 QC Batch ID: WG642366-3 WG642366-4 QC Sample: L1320114-02 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 19.02 | 120 | 136.6 | 98 | | 138.0 | 99 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG642616-4 WG642616-5 QC Sample: L1320115-01 Client ID: RC-SD-41-002-100813 | | | | | | | | | | | | |
| Arsenic, Total | 228. | 181 | 437 | 115 | | 380 | 84 | | 80-120 | 14 | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG642616-3 QC Sample: L1320115-01 Client ID: RC-SD-41-002-100813 | | | | | | |
| Arsenic, Total | 228. | 238 | mg/kg | 4 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-01
Client ID: RC-SD-41-002-100813
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/08/13 13:15
Date Received: 10/08/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 30.0 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 09:25 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-02
Client ID: RC-SD-48-001-100813
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/08/13 15:15
Date Received: 10/08/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 87.4 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 09:25 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-03
Client ID: FD-100813-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/08/13 15:15
Date Received: 10/08/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 86.7 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 09:25 | 30,2540G | JW |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG642422-1 QC Sample: L1320115-01 Client ID: RC-SD-41-002-100813 | | | | | | |
| Solids, Total | 30.0 | 30.5 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1320115-01A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1320115-02A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1320115-03A | Amber 120ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1320115-04A | Plastic 250ml HNO3 preserved | A | <2 | 4.2 | Y | Absent | DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 28 of 32 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



CHAIN OF CUSTODY

PAGE 1 OF 1

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard☒ Rush (ONLY IF PRE-APPROVED)

24 hr

Due Date: Time:

Westborough, MA Mansfield, MA
TEL: 508-898-9220 TEL: 508-822-9300
FAX: 508-898-9193 FAX: 508-822-3288

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 10/8/13

ALPHA Job #: C1320115

Report Information Data Deliverables

☐ FAX☒ EMAIL☒ ADEx☐ Add'l Deliverables

Billing Information

☒ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes☒ No

Are MCP Analytical Methods Required?

☐ Yes☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler's Initials |
|--------------------------------|---------------------|------------|-------|---------------------|--------------------|
| | | Date | Time | | |
| 2015-1 | RC-SD-41-002-100813 | 10/8/13 | 13:15 | sea | WJB |
| 2 | RC-SD-48-001-100813 | | 15:15 | sea | WJB |
| 3 | FD-100813-01 | | 15:15 | sea | WJB |
| 4 | EB-100813-01 | | 15:30 | d: H ₂ O | WJB |

| ALPHA Lab ID (Lab Use Only) | Sample ID | Date | Time | Sample Matrix | Sampler's Initials |
|--------------------------------|---------------------|---------|-------|---------------------|--------------------|
| 2015-1 | RC-SD-41-002-100813 | 10/8/13 | 13:15 | sea | WJB |
| 2 | RC-SD-48-001-100813 | | 15:15 | sea | WJB |
| 3 | FD-100813-01 | | 15:15 | sea | WJB |
| 4 | EB-100813-01 | | 15:30 | d: H ₂ O | WJB |

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01M
(rev. 5-JAN-12)

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

APPENDIX E

Round House Confirmation Sampling Analytical Data

(See CD Included Separately)



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316595 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/28/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|-----------------------|----------------------------|---------------------------------|
| L1316595-01 | SA71-SD-09-001-082613 | PLOW SHOP POND | 08/26/13 13:50 |
| L1316595-02 | FD-082613 | PLOW SHOP POND | 08/26/13 13:50 |
| L1316595-03 | SA71-SD-18-001-082613 | PLOW SHOP POND | 08/26/13 14:00 |
| L1316595-04 | EB-082613-01 | PLOW SHOP POND | 08/26/13 14:30 |
| L1316595-05 | SA71-SD-08-001-082613 | PLOW SHOP POND | 08/26/13 14:35 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.


M9 Other: Explain on chromatogram.

Metals

The WG631830-4/-5 MS/MSD recoveries, performed on L1316595-01, are outside the acceptance criteria for antimony (44%/47%); however, the associated LCS recovery is within acceptance criteria. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/28/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-01
 Client ID: SA71-SD-09-001-082613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 27%

Date Collected: 08/26/13 13:50
 Date Received: 08/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.36 | | mg/kg | 0.098 | 0.017 | 2 | 08/27/13 10:30 | 08/27/13 17:45 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-02
 Client ID: FD-082613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 29%

Date Collected: 08/26/13 13:50
 Date Received: 08/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.39 | | mg/kg | 0.098 | 0.017 | 2 | 08/27/13 10:30 | 08/27/13 17:51 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-03
 Client ID: SA71-SD-18-001-082613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 79%

Date Collected: 08/26/13 14:00
 Date Received: 08/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.702 | | mg/kg | 0.035 | 0.006 | 2 | 08/27/13 10:30 | 08/27/13 17:52 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-04
Client ID: EB-082613-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/26/13 14:30
Date Received: 08/26/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Antimony, Total | 0.3600 | J | ug/l | 1.000 | 0.1120 | 1 | 08/27/13 08:25 | 08/27/13 15:57 | EPA 3005A | 1,6020A | BM |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-05
 Client ID: SA71-SD-08-001-082613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 29%

Date Collected: 08/26/13 14:35
 Date Received: 08/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.81 | | mg/kg | 0.095 | 0.017 | 2 | 08/27/13 10:30 | 08/27/13 17:53 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 04 Batch: WG631770-1 | | | | | | | | | | |
| Antimony, Total | 0.2100 | J | ug/l | 1.000 | 0.1120 | 1 | 08/27/13 08:25 | 08/27/13 15:38 | 1,6020A | BM |

Prep Information

Digestion Method: EPA 3005A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-03,05 Batch: WG631830-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 08/27/13 10:30 | 08/27/13 17:44 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 04 Batch: WG631770-2 | | | | | | | | |
| Antimony, Total | 91 | | - | | 80-120 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01-03,05 Batch: WG631830-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 109 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 04 QC Batch ID: WG631770-3 WG631770-4 QC Sample: L1316595-04 Client ID: EB-082613-01 | | | | | | | | | | | | |
| Antimony, Total | 0.3600J | 500 | 453.9 | 91 | | 455.1 | 91 | | 80-120 | 0 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG631830-4 WG631830-5 QC Sample: L1316595-01 Client ID: SA71-SD-09-001-082613 | | | | | | | | | | | | |
| Antimony, Total | 2.36 | 3.83 | 4.03 | 44 | Q | 4.27 | 47 | Q | 80-120 | 6 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1316595
Report Date: 08/28/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG631830-3 QC Sample: L1316595-01 Client ID: SA71-SD-09-001-082613 | | | | | | |
| Antimony, Total | 2.36 | 2.35 | mg/kg | 0 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-01
Client ID: SA71-SD-09-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 13:50
Date Received: 08/26/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 27.2 | | % | 0.100 | 0.100 | 1 | - | 08/27/13 11:28 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-02
Client ID: FD-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 13:50
Date Received: 08/26/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 28.7 | | % | 0.100 | 0.100 | 1 | - | 08/27/13 11:28 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-03
Client ID: SA71-SD-18-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 14:00
Date Received: 08/26/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 78.9 | | % | 0.100 | 0.100 | 1 | - | 08/27/13 11:28 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-05
Client ID: SA71-SD-08-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 14:35
Date Received: 08/26/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 29.4 | | % | 0.100 | 0.100 | 1 | - | 08/27/13 11:28 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1316595
Report Date: 08/28/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG631847-1 QC Sample: L1316595-01 Client ID: SA71-SD-09-001-082613 | | | | | | |
| Solids, Total | 27.2 | 26.5 | % | 3 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1316595-01A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316595-01B | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-DOD-SB-6020T(180) |
| L1316595-01C | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-DOD-SB-6020T(180) |
| L1316595-02A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316595-03A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316595-04A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | DOD-SB-6020T(180) |
| L1316595-05A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |

Container Comments

L1316595-01C

L1316595-02A

L1316595-03A

L1316595-05A

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
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GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
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Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 26 of 33 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

[illegible]



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316812 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 08/30/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|--------------------|------------------------|--------------------|-------------------------|
| L1316812-01 | SA-71-SD-07-001-082813 | PLOW SHOP POND | 08/28/13 09:30 |
| L1316812-02 | SA-71-SD-06-001-082813 | PLOW SHOP POND | 08/28/13 09:40 |
| L1316812-03 | SA-71-SD-05-001-082813 | PLOW SHOP POND | 08/28/13 10:00 |
| L1316812-04 | SA-71-SD-04-001-082813 | PLOW SHOP POND | 08/28/13 10:10 |
| L1316812-05 | SA-71-SD-15-001-082813 | PLOW SHOP POND | 08/28/13 12:15 |
| L1316812-06 | SA-71-SD-14-001-082813 | PLOW SHOP POND | 08/28/13 12:20 |
| L1316812-07 | SA-71-SD-13-001-082813 | PLOW SHOP POND | 08/28/13 14:05 |
| L1316812-08 | SA-71-SD-03-001-082813 | PLOW SHOP POND | 08/28/13 14:15 |
| L1316812-09 | SA-71-SD-12-001-082813 | PLOW SHOP POND | 08/28/13 14:30 |
| L1316812-10 | SA-71-SD-02-001-082813 | PLOW SHOP POND | 08/28/13 14:45 |
| L1316812-11 | FD-082813-01 | PLOW SHOP POND | 08/28/13 14:05 |
| L1316812-12 | EB-082813-01 | PLOW SHOP POND | 08/28/13 14:40 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for antimony. All associated sample results have been qualified with a "Q".

The initial calibration blank and continuing calibration blank were above the LOD for antimony; however, the sample was below the detection limit.

The initial reporting limit standard recovery was above the acceptance limit of 120% for antimony; however, the sample was below the detection limit.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Case Narrative (continued)

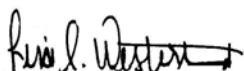
WG632505: A laboratory duplicate and/or matrix spike could not be performed due to insufficient sample volume available for analysis.

The WG632504-4/-5 MS/MSD recoveries, performed on L1316812-07, are above the acceptance criteria for antimony (565%/190%); however, the associated LCS recovery was within criteria. The parent sample should be qualified as "J" for this element.

The WG632504-4/-5 MS/MSD RPD, performed on L1316812-07, is above the acceptance criteria for antimony (59%). The parent sample should be qualified as "J" for this element.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 08/30/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-01
 Client ID: SA-71-SD-07-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 17%

Date Collected: 08/28/13 09:30
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.05 | Q | mg/kg | 0.168 | 0.030 | 2 | 08/29/13 11:00 | 08/30/13 12:04 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-02
 Client ID: SA-71-SD-06-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 12%

Date Collected: 08/28/13 09:40
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.37 | Q | mg/kg | 0.282 | 0.050 | 2 | 08/29/13 11:00 | 08/30/13 12:05 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-03
 Client ID: SA-71-SD-05-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 10%

Date Collected: 08/28/13 10:00
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 5.59 | Q | mg/kg | 0.277 | 0.049 | 2 | 08/29/13 11:00 | 08/30/13 12:07 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-04
 Client ID: SA-71-SD-04-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 8%

Date Collected: 08/28/13 10:10
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 5.95 | Q | mg/kg | 0.387 | 0.068 | 2 | 08/29/13 11:00 | 08/30/13 12:08 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-05
 Client ID: SA-71-SD-15-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 43%

Date Collected: 08/28/13 12:15
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 8.28 | Q | mg/kg | 0.067 | 0.012 | 2 | 08/29/13 11:00 | 08/30/13 12:21 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-06
 Client ID: SA-71-SD-14-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 33%

Date Collected: 08/28/13 12:20
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.66 | Q | mg/kg | 0.091 | 0.016 | 2 | 08/29/13 11:00 | 08/30/13 12:10 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-07
 Client ID: SA-71-SD-13-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 28%

Date Collected: 08/28/13 14:05
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 10.4 | Q | mg/kg | 0.102 | 0.018 | 2 | 08/29/13 11:00 | 08/30/13 12:10 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-08
 Client ID: SA-71-SD-03-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 9%

Date Collected: 08/28/13 14:15
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 5.98 | Q | mg/kg | 0.317 | 0.056 | 2 | 08/29/13 11:00 | 08/30/13 12:15 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-09
 Client ID: SA-71-SD-12-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 35%

Date Collected: 08/28/13 14:30
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 3.23 | Q | mg/kg | 0.085 | 0.015 | 2 | 08/29/13 11:00 | 08/30/13 12:17 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-10
 Client ID: SA-71-SD-02-001-082813
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 13%

Date Collected: 08/28/13 14:45
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 4.53 | Q | mg/kg | 0.225 | 0.040 | 2 | 08/29/13 11:00 | 08/30/13 12:18 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-11
 Client ID: FD-082813-01
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 33%

Date Collected: 08/28/13 14:05
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 8.25 | Q | mg/kg | 0.088 | 0.016 | 2 | 08/29/13 11:00 | 08/30/13 12:19 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-12
 Client ID: EB-082813-01
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/28/13 14:40
 Date Received: 08/28/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1394 | QJ | ug/l | 0.5000 | 0.0260 | 1 | 08/29/13 11:00 | 08/30/13 11:24 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG632504-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 08/29/13 11:00 | 08/30/13 12:02 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 12 Batch: WG632505-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 08/29/13 11:00 | 08/30/13 11:22 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG632504-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG632505-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 108 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG632504-4 WG632504-5 QC Sample: L1316812-07 Client ID: SA-71-SD-13-001-082813 | | | | | | | | | | | | |
| Antimony, Total | 10.4 | 4.04 | 33.2 | 565 | Q | 18.0 | 190 | Q | 80-120 | 59 | Q | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG632504-3 QC Sample: L1316812-07 Client ID: SA-71-SD-13-001-082813 | | | | | | |
| Antimony, Total | 10.4 | 10.5 | mg/kg | 1 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-01
Client ID: SA-71-SD-07-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 09:30
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 17.1 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-02
Client ID: SA-71-SD-06-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 09:40
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.6 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-03
Client ID: SA-71-SD-05-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 10:00
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.3 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-04
Client ID: SA-71-SD-04-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 10:10
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 7.83 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-05
Client ID: SA-71-SD-15-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 12:15
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 42.8 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-06
Client ID: SA-71-SD-14-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 12:20
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 33.0 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-07
Client ID: SA-71-SD-13-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:05
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 28.0 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-08
Client ID: SA-71-SD-03-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:15
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.39 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-09
Client ID: SA-71-SD-12-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:30
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 34.5 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-10
Client ID: SA-71-SD-02-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:45
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 13.4 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-11
Client ID: FD-082813-01
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:05
Date Received: 08/28/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 32.5 | | % | 0.100 | 0.100 | 1 | - | 08/29/13 08:53 | 30,2540G | KB |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG632451-1 QC Sample: L1316812-07 Client ID: SA-71-SD-13-001-082813 | | | | | | |
| Solids, Total | 28.0 | 28.9 | % | 3 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1316812-01A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-02A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-03A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-04A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-05A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-06A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-07A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-07B | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-07C | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-08A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-09A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-10A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-11A | Amber 100ml unpreserved | A | N/A | 2.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316812-12A | Plastic 250ml HNO3 preserved | A | <2 | 2.4 | Y | Absent | A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

| CHAIN OF CUSTODY | | | | | |
|------------------|--|-------------|--------------------|--|-----------------------|
| | | PAGE 1 OF 2 | Date Rec'd in Lab: | | ALPHA Job #: L/316812 |

| Project Information | | Report Information / Data Deliverables | | Billing Information | |
|--|--|--|--|--|--|
| Westborough, MA Mansfield, MA TEL 508-898-9220 TEL 508-822-9300 FAX 508-898-9193 FAX 508-822-3288 | | <input type="checkbox"/> FAX <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> ADEx <input type="checkbox"/> Add'l Deliverables | | <input checked="" type="checkbox"/> Same as Client info PO #: | |

| Client Information | | Regulatory Requirements/Report Limits | |
|---|---|---|--|
| Project Name: Devens | | State/Fed Program Criteria | |
| Project Location: Plow Shop Pond | | MCP/PRESUMPTIVE/CERTAINTY/CT REASONABLE/CONFIDENCE PROTOCOLS | |
| Client: Sovereign Consulting Inc. | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are MCP Analytical Methods Required? | |
| Address: 4 Open Square Way, Ste. 307 | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are CT RCP (Reasonable Confidence Protocols) Required? | |
| Holyoke, MA 01040 | Alpha Quote #: | ANALYSIS | |
| Phone: 413-540-0650 | Turn-Around Time | | |
| Fax: 413-540-0656 | <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (ONLY IF PRE-APPROVED) | | |
| Email: RLeary@sovcon.com | Due Date: Time: | | |
| <input type="checkbox"/> These samples have been Previously analyzed by Alpha | | | |
| Other Project Specific Requirements/Comments/Detection Limits: | | | |

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler's Initials | SAMPLE HANDLING | | | | | | | | | | | | | | | |
|--------------------------------|------------------------|------------|------|---------------|--------------------|-------------------------------------|--------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------|--|--|--|
| | | Date | Time | | | Total # BOTTLES | Filtration | <input type="checkbox"/> Done <input type="checkbox"/> Not Needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please specify below) | | | | | | | | | | | | | |
| 1 | SA-71-SD-07-001-082813 | 8/28/13 | 0930 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 2 | SA-71-SD-06-001-082813 | 8/28/13 | 0940 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 3 | SA-71-SD-05-001-082813 | 8/28/13 | 1000 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 4 | SA-71-SD-04-001-082813 | 8/28/13 | 1010 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 5 | SA-71-SD-15-001-082813 | 8/28/13 | 1215 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 6 | SA-71-SD-14-001-082813 | 8/28/13 | 1220 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 7 | SA-71-SD-13-001-082813 | 8/28/13 | 1405 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | ms/msd | | | |
| 8 | SA-71-SD-03-001-082813 | 8/28/13 | 1415 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 9 | SA-71-SD-02-001-082813 | 8/28/13 | 1430 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 10 | SA-71-SD-02-001-082813 | 8/28/13 | 1445 | SD | EF | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |

| PLEASE ANSWER QUESTIONS ABOVE! | | Container Type | | A | P | - | - | - | - | - | - | - | - | - | - | - | - | - |
|--------------------------------|--|----------------|--|--------------|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preservative | | A | C | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Relinquished By: | | Date/Time | | Received By: | | Date/Time | | | | | | | | | | | | |
| [Signature] | | 8/28/13 1615 | | [Signature] | | 8/28/13 1715 | | | | | | | | | | | | |
| [Signature] | | 8/28/13 03:00 | | Manahadlab | | 8/28/13 03:00 | | | | | | | | | | | | |

IS YOUR PROJECT
MA MCP or CT RCP?
FORM NO: 01-01(1)
(rev. 5-JAN-12)

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.
1615

CHAIN OF CUSTODY

PAGE 2 OF 2

ANALYTICAL
Method: Spot-Counting

Project Information

Westborough, MA Mansfield, MA
TEL: 508-898-9220 TEL: 508-822-9300
FAX: 508-898-9193 FAX: 508-822-3288

Project Name: Devens

Client Information

Client: Sovereign Consulting Inc.

Project Location: Plow Shop Pond

Address: 4 Open Square Way, Ste. 307

Project #: AC001.005

Holyoke, MA 01040

Project Manager: Rachel Leary

Phone: 413-540-0650

ALPHA Quote #:

Fax: 413-540-0656

Turn-Around Time

Email: RLeary@sovcon.com

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)☐ These samples have been Previously analyzed by Alpha

Due Date:

24 hr TAT

Time:

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab:

ALPHA Job #:

Report Information, Data Deliverables

Billing Information

☐ FAX☒ EMAIL☒ Same as Client info

PO #

☒ ADEx☐ Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes☒ No

Are MCP Analytical Methods Required?

☐ Yes☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific
Comments

TOTAL # BOTTLES

Total Sb by 6000

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler's Initials |
|--------------------------------|--------------|------------|------|------------------|-----------------------|
| | | Date | Time | | |
| 11 | FD-082813-01 | 8/28/13 | 1405 | SD | EF |
| 12 | EB-082813-01 | 8/28/13 | 1440 | AB | EF |
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PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT
MA MCP or CT RCP?FORM NO: 01-01(I)
(rev. 5-JAN-12)

Container Type

A

P

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Preservative

A

C

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Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly
and completely. Samples can
not be logged in and
turnaround time clock will not
start until any ambiguities are
resolved. All samples
submitted are subject to
Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1316932 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/03/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------------|----------------------------|---------------------------------|
| L1316932-01 | SA-71-SD-01-001-082913 | PLOW SHOP POND | 08/29/13 14:05 |
| L1316932-02 | EB-082913-01 | PLOW SHOP POND | 08/29/13 14:50 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated sample results have been qualified with a "Q".

WG633143: A laboratory duplicate and/or matrix spike could not be performed due to insufficient sample volume available for analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/03/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316932-01
 Client ID: SA-71-SD-01-001-082913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 08/29/13 14:05
 Date Received: 08/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.16 | Q | mg/kg | 0.232 | 0.041 | 2 | 09/02/13 08:30 | 09/03/13 10:33 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316932-02
Client ID: EB-082913-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/29/13 14:50
Date Received: 08/29/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1104 | JQ | ug/l | 0.5000 | 0.0260 | 1 | 09/02/13 08:30 | 09/03/13 11:25 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG633142-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 09/02/13 08:30 | 09/03/13 10:31 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 02 Batch: WG633143-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 09/02/13 08:30 | 09/03/13 11:23 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG633142-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG633143-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 109 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG633142-4 WG633142-5 QC Sample: L1317005-04 Client ID: MS Sample | | | | | | | | | | | | |
| Antimony, Total | 2.04 | 2.51 | 3.48 | 57 | Q | 3.64 | 64 | Q | 80-120 | 4 | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG633142-3 QC Sample: L1317005-04 Client ID: DUP Sample | | | | | | |
| Antimony, Total | 2.04 | 1.90 | mg/kg | 7 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316932-01
Client ID: SA-71-SD-01-001-082913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/29/13 14:05
Date Received: 08/29/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.1 | | % | 0.100 | 0.100 | 1 | - | 08/30/13 10:00 | 30,2540G | KB |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG632802-1 QC Sample: L1316932-01 Client ID: SA-71-SD-01-001-082913 | | | | | | |
| Solids, Total | 11.1 | 11.2 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1316932-01A | Amber 100ml unpreserved | A | N/A | 1.7 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1316932-02A | Plastic 250ml HNO3 preserved | A | <2 | 1.7 | Y | Absent | A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317005 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Peter Dacyk |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/03/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------------|----------------------------|---------------------------------|
| L1317005-01 | SA-71-SD-11-001-083013 | PLOW SHOP POND | 08/30/13 11:30 |
| L1317005-02 | SA-71-SD-10-001-083013 | PLOW SHOP POND | 08/30/13 11:40 |
| L1317005-03 | SA-71-SD-17-001-083013 | PLOW SHOP POND | 08/30/13 12:00 |
| L1317005-04 | SA-71-SD-16-001-083013 | PLOW SHOP POND | 08/30/13 12:10 |
| L1317005-05 | FD-083013-01 | PLOW SHOP POND | 08/30/13 12:10 |
| L1317005-06 | EB-083013-01 | PLOW SHOP POND | 08/30/13 12:25 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated sample results have been qualified with a "Q".

The WG633222-1 Method Blank, associated with L1317005-06, has a concentration $> \frac{1}{2}$ RL and $< \frac{1}{2}$ RL and is "J" qualified for antimony. The associated field sample results are "B" qualified if the concentrations are $> \frac{1}{2}$ RL and less than 10x the concentration in the blank.

The WG633142-4/-5 MS/MSD recoveries, performed on L1317005-04, are below the acceptance criteria for

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1317005
Report Date: 09/03/13

Case Narrative (continued)

antimony (57%/64%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1317005-04) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/03/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-01
 Client ID: SA-71-SD-11-001-083013
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 50%

Date Collected: 08/30/13 11:30
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 10.1 | Q | mg/kg | 0.055 | 0.010 | 2 | 09/02/13 08:30 | 09/03/13 10:34 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-02
 Client ID: SA-71-SD-10-001-083013
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 66%

Date Collected: 08/30/13 11:40
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.89 | Q | mg/kg | 0.044 | 0.008 | 2 | 09/02/13 08:30 | 09/03/13 10:36 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-03
 Client ID: SA-71-SD-17-001-083013
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 67%

Date Collected: 08/30/13 12:00
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 1.18 | Q | mg/kg | 0.042 | 0.007 | 2 | 09/02/13 08:30 | 09/03/13 10:37 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-04
 Client ID: SA-71-SD-16-001-083013
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 45%

Date Collected: 08/30/13 12:10
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.04 | Q | mg/kg | 0.062 | 0.011 | 2 | 09/02/13 08:30 | 09/03/13 10:38 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-05
 Client ID: FD-083013-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 36%

Date Collected: 08/30/13 12:10
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 3.14 | Q | mg/kg | 0.072 | 0.013 | 2 | 09/02/13 08:30 | 09/03/13 10:42 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-06
 Client ID: EB-083013-01
 Sample Location: PLOW SHOP POND
 Matrix: Water

Date Collected: 08/30/13 12:25
 Date Received: 08/30/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Antimony, Total | 0.2620 | JB | ug/l | 0.5000 | 0.1120 | 1 | 09/03/13 09:18 | 09/03/13 13:42 | EPA 3005A | 1,6020A | AK |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG633142-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 09/02/13 08:30 | 09/03/13 10:31 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 06 Batch: WG633222-1 | | | | | | | | | | |
| Antimony, Total | 0.3510 | J | ug/l | 0.5000 | 0.1120 | 1 | 09/03/13 09:18 | 09/03/13 13:38 | 1,6020A | AK |

Prep Information

Digestion Method: EPA 3005A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG633142-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |
| Total Metals - Westborough Lab Associated sample(s): 06 Batch: WG633222-2 | | | | | | | | |
| Antimony, Total | 88 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG633142-4 WG633142-5 QC Sample: L1317005-04 Client ID: SA-71-SD-16-001-083013 | | | | | | | | | | | | |
| Antimony, Total | 2.04 | 2.51 | 3.48 | 57 | Q | 3.64 | 64 | Q | 80-120 | 4 | | 20 |
| Total Metals - Westborough Lab Associated sample(s): 06 QC Batch ID: WG633222-4 QC Sample: L1316977-01 Client ID: MS Sample | | | | | | | | | | | | |
| Antimony, Total | 1.529 | 500 | 451.9 | 90 | | - | - | | 80-120 | - | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1317005
Report Date: 09/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG633142-3 QC Sample: L1317005-04 Client ID: SA-71-SD-16-001-083013 | | | | | | |
| Antimony, Total | 2.04 | 1.90 | mg/kg | 7 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-01
Client ID: SA-71-SD-11-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 11:30
Date Received: 08/30/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 50.4 | | % | 0.100 | 0.100 | 1 | - | 09/03/13 10:57 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-02
Client ID: SA-71-SD-10-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 11:40
Date Received: 08/30/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 65.6 | | % | 0.100 | 0.100 | 1 | - | 09/03/13 10:57 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-03
Client ID: SA-71-SD-17-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 12:00
Date Received: 08/30/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 66.9 | | % | 0.100 | 0.100 | 1 | - | 09/03/13 10:57 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-04
Client ID: SA-71-SD-16-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 12:10
Date Received: 08/30/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 44.7 | | % | 0.100 | 0.100 | 1 | - | 09/03/13 10:57 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-05
Client ID: FD-083013-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 12:10
Date Received: 08/30/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 36.2 | | % | 0.100 | 0.100 | 1 | - | 09/03/13 10:57 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1317005
Report Date: 09/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG633279-1 QC Sample: L1317005-04 Client ID: SA-71-SD-16-001-083013 | | | | | | |
| Solids, Total | 44.7 | 45.5 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317005-01A | Amber 100ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317005-02A | Amber 100ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317005-03A | Amber 100ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317005-04A | Amber 100ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317005-04B | Amber 100ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317005-04C | Amber 100ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317005-05A | Amber 100ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317005-06A | Plastic 250ml HNO3 preserved | A | <2 | 4.1 | Y | Absent | DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 32 of 35 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisison on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

PAGE 1 OF 1

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| | |
|--------------------------|--------------------------|
| Westborough, MA | Mansfield, MA |
| TEL: 508-898-9220 | TEL: 508-822-9300 |
| FAX: 508-898-9193 | FAX: 508-822-3288 |

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler's Initials |
|--------------------------------|------------------------|------------|------|---------------|--------------------|
| | | Date | Time | | |
| 17005 - 01 | SA-71-SD-11-001-083013 | 8/30/13 | 1130 | SD | SL |
| -02 | SA-71-SD-10-001-083013 | 8/30/13 | 1140 | SD | SL EF |
| -03 | SA-71-SD-12-001-083013 | 8/30/13 | 1200 | SD | EF |
| -04 | SA-71-SD-16-001-083013 | 8/30/13 | 1210 | SD | EF |
| -05 | FD-083013-01 | 8/30/13 | 1210 | SD | EF |
| -06 | FB-083013-01 | 8/30/13 | 1225 | AQ | EF |
| | | | | | |
| | | | | | |
| | | | | | |

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I)
(rev. 5 JAN-12)

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

8/30/13

L1317005

| Criteria |
|----------|
|----------|

Are CT RCP (Reasonable Confidence Protocols) Required?

Sample Specific Comments

TOTAL # BOTTLES

Total Sb by load



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317463 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/10/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------------|----------------------------|---------------------------------|
| L1317463-01 | SA-71-SD-05-002-090613 | PLOW SHOP POND | 09/06/13 11:20 |
| L1317463-02 | SA-71-SD-04-002-090613 | PLOW SHOP POND | 09/06/13 11:25 |
| L1317463-03 | SA-71-SD-06-002-090613 | PLOW SHOP POND | 09/06/13 12:00 |
| L1317463-04 | FD-090613-01 | PLOW SHOP POND | 09/06/13 11:20 |
| L1317463-05 | EB-090613-01 | PLOW SHOP POND | 09/06/13 12:20 |
| L1317463-06 | SA-71-SD-15-002-090613 | PLOW SHOP POND | 09/06/13 14:40 |
| L1317463-07 | SA-71-SD-14-002-090613 | PLOW SHOP POND | 09/06/13 15:10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317463-05, has concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG634625-4/-5 MS/MSD recoveries, performed on L1317463-01, are below the acceptance criteria for

Project Name: DEVENS
Project Number: AC001.005


Lab Number: L1317463
Report Date: 09/10/13

Case Narrative (continued)

antimony (65%/46%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1317463-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/10/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
 Client ID: SA-71-SD-05-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 14%

Date Collected: 09/06/13 11:20
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.93 | Q | mg/kg | 0.201 | 0.036 | 2 | 09/09/13 11:00 | 09/10/13 10:09 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
 Client ID: SA-71-SD-04-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 09/06/13 11:25
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 7.81 | Q | mg/kg | 0.268 | 0.047 | 2 | 09/09/13 11:00 | 09/10/13 10:15 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
 Client ID: SA-71-SD-06-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 12%

Date Collected: 09/06/13 12:00
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 3.08 | Q | mg/kg | 0.217 | 0.038 | 2 | 09/09/13 11:00 | 09/10/13 10:15 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
 Client ID: FD-090613-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 14%

Date Collected: 09/06/13 11:20
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.10 | Q | mg/kg | 0.186 | 0.033 | 2 | 09/09/13 11:00 | 09/10/13 10:16 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-05
Client ID: EB-090613-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 12:20
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1054 | JQ | ug/l | 0.5000 | 0.0260 | 1 | 09/09/13 11:00 | 09/10/13 10:43 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
 Client ID: SA-71-SD-15-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 15%

Date Collected: 09/06/13 14:40
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.89 | Q | mg/kg | 0.181 | 0.032 | 2 | 09/09/13 11:00 | 09/10/13 10:17 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
 Client ID: SA-71-SD-14-002-090613
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 17%

Date Collected: 09/06/13 15:10
 Date Received: 09/06/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 7.52 | Q | mg/kg | 0.168 | 0.030 | 2 | 09/09/13 11:00 | 09/10/13 10:18 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-04,06-07 Batch: WG634625-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 09/09/13 11:00 | 09/10/13 10:07 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|---------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 05 Batch: WG634627-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.00003 | 1 | 09/09/13 11:00 | 09/10/13 10:41 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 Batch: WG634625-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG634627-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|

Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-4 WG634625-5 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613

| | | | | | | | | | | | | |
|-----------------|------|------|------|----|---|------|----|---|--------|----|--|----|
| Antimony, Total | 6.93 | 8.14 | 12.2 | 65 | Q | 10.7 | 46 | Q | 80-120 | 13 | | 20 |
|-----------------|------|------|------|----|---|------|----|---|--------|----|--|----|

Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-4 QC Sample: L1317463-05 Client ID: EB-090613-01

| | | | | | | | | | | | | |
|-----------------|---------|----|------|-----|--|---|---|--|--------|---|--|----|
| Antimony, Total | 0.1054J | 40 | 44.3 | 111 | | - | - | | 80-120 | - | | 20 |
|-----------------|---------|----|------|-----|--|---|---|--|--------|---|--|----|

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-3 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613 | | | | | | |
| Antimony, Total | 6.93 | 7.07 | mg/kg | 2 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-3 QC Sample: L1317463-05 Client ID: EB-090613-01 | | | | | | |
| Antimony, Total | 0.1054J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
Client ID: SA-71-SD-05-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 13.5 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
Client ID: SA-71-SD-04-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:25
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.9 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
Client ID: SA-71-SD-06-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 12:00
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 12.1 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
Client ID: FD-090613-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 13.9 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
Client ID: SA-71-SD-15-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 14:40
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 15.2 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
Client ID: SA-71-SD-14-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 15:10
Date Received: 09/06/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 16.7 | | % | 0.100 | 0.100 | 1 | - | 09/09/13 08:39 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1317463
Report Date: 09/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634553-1 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613 | | | | | | |
| Solids, Total | 13.5 | 13.7 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317463-01A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-01B | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-01C | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-02A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-03A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-04A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-05A | Plastic 250ml HNO3 preserved | A | <2 | 5 | Y | Absent | A2-DOD-SB-6020T(180) |
| L1317463-06A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317463-07A | Amber 100ml unpreserved | A | N/A | 5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 80011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

[illegible]



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317704 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/12/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|-----------------------|----------------------------|---------------------------------|
| L1317704-01 | SA71-SD-01-002-091013 | PLOW SHOP POND | 09/10/13 10:45 |
| L1317704-02 | SA71-SD-11-002-091013 | PLOW SHOP POND | 09/10/13 11:15 |
| L1317704-03 | SA71-SD-03-002-091013 | PLOW SHOP POND | 09/10/13 11:30 |
| L1317704-04 | SA71-SD-13-002-091013 | PLOW SHOP POND | 09/10/13 11:35 |
| L1317704-05 | FD-091013-01 | PLOW SHOP POND | 09/10/13 11:35 |
| L1317704-06 | EB-091013-01 | PLOW SHOP POND | 09/10/13 11:45 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317704-06, have concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/12/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-01
 Client ID: SA71-SD-01-002-091013
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 10%

Date Collected: 09/10/13 10:45
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 1.56 | Q | mg/kg | 0.292 | 0.052 | 2 | 09/11/13 11:00 | 09/12/13 11:03 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-02
 Client ID: SA71-SD-11-002-091013
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 11%

Date Collected: 09/10/13 11:15
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 50.8 | Q | mg/kg | 0.270 | 0.048 | 2 | 09/11/13 11:00 | 09/12/13 11:04 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-03
 Client ID: SA71-SD-03-002-091013
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 11%

Date Collected: 09/10/13 11:30
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.602 | Q | mg/kg | 0.242 | 0.043 | 2 | 09/11/13 11:00 | 09/12/13 11:06 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-04
 Client ID: SA71-SD-13-002-091013
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 9%

Date Collected: 09/10/13 11:35
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 1.62 | Q | mg/kg | 0.329 | 0.058 | 2 | 09/11/13 11:00 | 09/12/13 11:07 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-05
 Client ID: FD-091013-01
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 9%

Date Collected: 09/10/13 11:35
 Date Received: 09/10/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.43 | Q | mg/kg | 0.325 | 0.057 | 2 | 09/11/13 11:00 | 09/12/13 11:11 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-06
Client ID: EB-091013-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 11:45
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1590 | JQ | ug/l | 0.5000 | 0.0260 | 1 | 09/11/13 11:00 | 09/12/13 09:58 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG635275-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 09/11/13 11:00 | 09/12/13 11:02 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 06 Batch: WG635276-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 09/11/13 11:00 | 09/12/13 09:56 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG635275-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 106 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 06 Batch: WG635276-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 106 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG635275-4 WG635275-5 QC Sample: L1317704-04 Client ID: SA71-SD-13-002-091013 | | | | | | | | | | | | |
| Antimony, Total | 1.62 | 12.6 | 14.0 | 98 | | 14.2 | 99 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG635276-4 QC Sample: L1317704-06 Client ID: EB-091013-01 | | | | | | | | | | | | |
| Antimony, Total | 0.1590J | 40 | 42.90 | 107 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG635275-3 QC Sample: L1317704-04 Client ID: SA71-SD-13-002-091013 | | | | | | |
| Antimony, Total | 1.62 | 1.93 | mg/kg | 17 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG635276-3 QC Sample: L1317704-06 Client ID: EB-091013-01 | | | | | | |
| Antimony, Total | 0.1590J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-01
Client ID: SA71-SD-01-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 10:45
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.2 | | % | 0.100 | 0.100 | 1 | - | 09/11/13 09:36 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-02
Client ID: SA71-SD-11-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:15
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.2 | | % | 0.100 | 0.100 | 1 | - | 09/11/13 09:36 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-03
Client ID: SA71-SD-03-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:30
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.0 | | % | 0.100 | 0.100 | 1 | - | 09/11/13 09:36 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-04
Client ID: SA71-SD-13-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:35
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.09 | | % | 0.100 | 0.100 | 1 | - | 09/11/13 09:36 | 30,2540G | KB |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-05
Client ID: FD-091013-01
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:35
Date Received: 09/10/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.37 | | % | 0.100 | 0.100 | 1 | - | 09/11/13 09:36 | 30,2540G | KB |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG635238-1 QC Sample: L1317704-04 Client ID: SA71-SD-13-002-091013 | | | | | | |
| Solids, Total | 9.09 | 8.48 | % | 7 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317704-01A | Amber 100ml unpreserved | A | N/A | | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317704-02A | Amber 100ml unpreserved | A | N/A | | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317704-03A | Amber 100ml unpreserved | A | N/A | | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317704-04A | Amber 100ml unpreserved | A | N/A | | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317704-04B | Amber 100ml unpreserved | A | N/A | | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317704-04C | Amber 100ml unpreserved | A | N/A | | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317704-05A | Amber 100ml unpreserved | A | N/A | | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317704-06A | Plastic 250ml HNO3 preserved | A | <2 | | Y | Absent | A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 31 of 34 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



PAGE 1 OF 1

Project Name: Devens.

| | |
|------------------------|----------------------|
| Westborough, MA | Mansfield, MA |
| TEL: 508-898-9220 | TEL: 508-822-9300 |
| FAX: 508-898-9193 | FAX: 508-822-3288 |

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

Fax: 413-540-0656

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Email: RLeary@sovcon.com

Due Date: 9/11/13 Time:

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

| | | | | | | | |
|--|--|---|--|---|--|-------|---|
| Date Rec'd in Lab: <u>9/10/13</u> | | | | ALPHA Job #: <u>L3177B2</u> | | | |
| Report Information Data Deliverables | | | | Billing Information | | | |
| <input type="checkbox"/> FAX | | <input checked="" type="checkbox"/> EMAIL | | <input checked="" type="checkbox"/> Same as Client info | | PO #: | |
| <input checked="" type="checkbox"/> ADEx | | <input type="checkbox"/> Add'l Deliverables | | | | | |
| Regulatory Requirements/Report Limits | | | | | | | |
| State/Fed Program | | | | Criteria | | | |
| MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS | | | | | | | |
| <input type="checkbox"/> Yes | | <input checked="" type="checkbox"/> No | | Are MCP Analytical Methods Required? | | | |
| <input type="checkbox"/> Yes | | <input checked="" type="checkbox"/> No | | Are CT RCP (Reasonable Confidence Protocols) Required? | | | |
| ANALYSIS | | | | | | | <div style="text-align: center; font-weight: bold;">SAMPLE HANDLING</div> <div> <input type="checkbox"/> Done <input type="checkbox"/> Not Needed <input type="checkbox"/> Lab to do </div> <div> Preservation <input type="checkbox"/> Lab to do <i>(Please specify below)</i> </div> <div style="margin-top: 20px;"> Sample Specific Comments </div> |
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Total Sb by 6020

TOTAL # BOTTLES

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I)
(rev. 5-JAN-12)

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples cannot be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317764 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/12/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------------|----------------------------|---------------------------------|
| L1317764-01 | SA-71-SD-07-002-091113 | PLOW SHOP POND | 09/11/13 09:40 |
| L1317764-02 | EB-091113-01 | PLOW SHOP POND | 09/11/13 10:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317764-02, have concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/12/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317764-01
 Client ID: SA-71-SD-07-002-091113
 Sample Location: PLOW SHOP POND
 Matrix: Soil
 Percent Solids: 9%

Date Collected: 09/11/13 09:40
 Date Received: 09/11/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.985 | Q | mg/kg | 0.300 | 0.053 | 2 | 09/11/13 11:00 | 09/12/13 11:12 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317764-02
Client ID: EB-091113-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/11/13 10:30
Date Received: 09/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1336 | JQ | ug/l | 0.5000 | 0.0260 | 1 | 09/11/13 11:00 | 09/12/13 10:03 | EPA 3020A | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG635275-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 09/11/13 11:00 | 09/12/13 11:02 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 02 Batch: WG635276-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 09/11/13 11:00 | 09/12/13 09:56 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG635275-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 106 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG635276-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 106 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635275-4 WG635275-5 QC Sample: L1317704-04 Client ID: MS Sample | | | | | | | | | | | | |
| Antimony, Total | 1.62 | 12.6 | 14.0 | 98 | | 14.2 | 99 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635276-4 QC Sample: L1317704-06 Client ID: MS Sample | | | | | | | | | | | | |
| Antimony, Total | 0.1590J | 40 | 42.90 | 107 | | - | - | | 80-120 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635275-3 QC Sample: L1317704-04 Client ID: DUP Sample | | | | | | |
| Antimony, Total | 1.62 | 1.93 | mg/kg | 17 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635276-3 QC Sample: L1317704-06 Client ID: DUP Sample | | | | | | |
| Antimony, Total | 0.1590J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317764-01
Client ID: SA-71-SD-07-002-091113
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/11/13 09:40
Date Received: 09/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.15 | | % | 0.100 | 0.100 | 1 | - | 09/11/13 13:25 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635327-1 QC Sample: L1316832-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 68.8 | 68.3 | % | 1 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1317764-01A | Amber 100ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1317764-02A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1318526 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/23/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------------|----------------------------|---------------------------------|
| L1318526-01 | SA-71-SD-11-003-091913 | PLOW SHOP POND | 09/19/13 14:15 |
| L1318526-02 | FD-091913-02 | PLOW SHOP POND | 09/19/13 14:15 |
| L1318526-03 | EB-091913-02 | PLOW SHOP POND | 09/19/13 14:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

L1318526-03: The continuing calibration blanks have concentrations above the LOD for antimony. Since the sample concentration was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name: DEVENS
Project Number: AC001.005

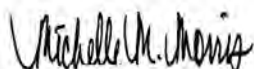
Lab Number: L1318526
Report Date: 09/23/13

Case Narrative (continued)

The WG637817-4/-5 MS/MSD recoveries, performed on L1318526-01, are below the acceptance criteria for antimony (55%/38%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1318526-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/23/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-01
 Client ID: SA-71-SD-11-003-091913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 28%

Date Collected: 09/19/13 14:15
 Date Received: 09/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 5.81 | Q | mg/kg | 0.098 | 0.017 | 2 | 09/20/13 15:00 | 09/23/13 12:12 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-02
 Client ID: FD-091913-02
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 29%

Date Collected: 09/19/13 14:15
 Date Received: 09/19/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 4.50 | Q | mg/kg | 0.096 | 0.017 | 2 | 09/20/13 15:00 | 09/23/13 12:16 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-03
Client ID: EB-091913-02
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 14:30
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | ND | Q | ug/l | 0.5000 | 0.0260 | 1 | 09/20/13 15:00 | 09/23/13 12:01 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 03 Batch: WG637815-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 09/20/13 15:00 | 09/23/13 11:59 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG637817-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 09/20/13 15:00 | 09/23/13 12:10 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG637815-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG637817-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 106 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637815-4 QC Sample: L1318526-03 Client ID: EB-091913-02 | | | | | | | | | | | | |
| Antimony, Total | ND | 20 | 20.41 | 102 | | - | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637817-4 WG637817-5 QC Sample: L1318526-01 Client ID: SA-71-SD-11-003-091913 | | | | | | | | | | | | |
| Antimony, Total | 5.81 | 3.91 | 7.96 | 55 | Q | 7.29 | 38 | Q | 80-120 | 9 | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637815-3 QC Sample: L1318526-03 Client ID: EB-091913-02 | | | | | | |
| Antimony, Total | ND | ND | ug/l | NC | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637817-3 QC Sample: L1318526-01 Client ID: SA-71-SD-11-003-091913 | | | | | | |
| Antimony, Total | 5.81 | 5.45 | mg/kg | 6 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-01
Client ID: SA-71-SD-11-003-091913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 14:15
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 28.4 | | % | 0.100 | 0.100 | 1 | - | 09/20/13 11:39 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-02
Client ID: FD-091913-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 14:15
Date Received: 09/19/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 28.6 | | % | 0.100 | 0.100 | 1 | - | 09/20/13 11:39 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637756-1 QC Sample: L1318526-01 Client ID: SA-71-SD-11-003-091913 | | | | | | |
| Solids, Total | 28.4 | 28.3 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1318526-01A | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1318526-01B | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1318526-01C | Amber 120ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1318526-02A | Glass 100ml unpreserved | A | N/A | 2.3 | Y | Absent | A2-DOD-SB-6020T(180) |
| L1318526-03A | Plastic 250ml HNO3 preserved | A | <2 | 2.3 | Y | Absent | A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 26 of 29 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319528 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/03/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|----------------------|----------------------------|---------------------------------|
| L1319528-01 | SA71-SD-VAULT-092713 | PLOW SHOP POND | 09/27/13 11:25 |
| L1319528-02 | SA71-SD-23B-092713 | PLOW SHOP POND | 09/27/13 10:20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

L1319528-01 has an elevated detection limit for antimony due to the dilution required by non-target analyte internal standard interferences encountered during analysis.

The WG640719-4/-5 MS/MSD recoveries, performed on L1319528-02, are below the acceptance criteria for antimony (0%/0%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1319528-02) should be qualified as "J" for this analyte.

The WG640719-4/-5 MS/MSD RPD, performed on L1319528-02, is above the acceptance criteria for

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Case Narrative (continued)

antimony (52%).


The WG640719-3 Laboratory Duplicate RPD (108%), performed on L1319528-02, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

Total Solids

The WG640592-1 Laboratory Duplicate RPD (32%), performed on L1319528-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/03/13

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-01 D
 Client ID: SA71-SD-VAULT-092713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Analytical Method: 1,8015C(M)
 Analytical Date: 10/03/13 11:04
 Analyst: AR
 Percent Solids: 37%

Date Collected: 09/27/13 11:25
 Date Received: 10/01/13
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 10/02/13 13:49

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|---------|-----------|-------|--------|-------|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 5670000 | | ug/kg | 871000 | 85300 | 10 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 65 | | 40-140 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-02
 Client ID: SA71-SD-23B-092713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Analytical Method: 1,8015C(M)
 Analytical Date: 10/03/13 11:04
 Analyst: AR
 Percent Solids: 79%

Date Collected: 09/27/13 10:20
 Date Received: 10/01/13
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 10/02/13 13:49

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|------|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 159000 | | ug/kg | 41100 | 4020 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 82 | | 40-140 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 10/03/13 09:58
Analyst: AR

Extraction Method: EPA 3546
Extraction Date: 10/02/13 13:49

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-------|------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-02 Batch: WG640735-1 | | | | | |
| TPH | ND | | ug/kg | 32700 | 3200 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|------------------------|
| o-Terphenyl | 95 | | 40-140 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 Batch: WG640735-2 | | | | | | | | |
| TPH | 73 | | - | | 40-140 | - | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| o-Terphenyl | 91 | | | | 40-140 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| <i>Parameter</i> | <i>Native Sample</i> | <i>MS Added</i> | <i>MS Found</i> | <i>MS %Recovery</i> | <i>Qual</i> | <i>MSD Found</i> | <i>MSD %Recovery</i> | <i>Qual</i> | <i>Recovery Limits</i> | <i>RPD</i> | <i>Qual</i> | <i>RPD Limits</i> |
|---|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG640735-3 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713 | | | | | | | | | | | | |
| TPH | 159000 | 116000 | 240000 | 70 | | - | - | | 40-140 | - | | 40 |

| <i>Surrogate</i> | <i>MS % Recovery</i> | <i>Qualifier</i> | <i>MSD % Recovery</i> | <i>Qualifier</i> | <i>Acceptance Criteria</i> |
|------------------|----------------------|------------------|-----------------------|------------------|----------------------------|
| o-Terphenyl | 88 | | | | 40-140 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG640735-4 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713 | | | | | | |
| TPH | 159000 | 160000 | ug/kg | 1 | | 40 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|-----------|-----------|---------------------|
| o-Terphenyl | 82 | | 85 | | 40-140 |

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-01
 Client ID: SA71-SD-VAULT-092713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 37%

Date Collected: 09/27/13 11:25
 Date Received: 10/01/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 3.77 | | mg/kg | 1.79 | 0.315 | 50 | 10/02/13 14:00 | 10/03/13 15:04 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-02
 Client ID: SA71-SD-23B-092713
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 79%

Date Collected: 09/27/13 10:20
 Date Received: 10/01/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 4.30 | | mg/kg | 0.036 | 0.006 | 2 | 10/02/13 14:00 | 10/03/13 15:00 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG640719-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 10/02/13 14:00 | 10/03/13 14:49 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG640719-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 108 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG640719-4 WG640719-5 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713 | | | | | | | | | | | | |
| Antimony, Total | 4.30 | 1.43 | 2.70 | 0 | Q | 1.58 | 0 | Q | 80-120 | 52 | Q | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG640719-3 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713 | | | | | | |
| Antimony, Total | 4.30 | 1.28 | mg/kg | 108 | Q | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-01
Client ID: SA71-SD-VAULT-092713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/27/13 11:25
Date Received: 10/01/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 37.4 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 08:18 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-02
Client ID: SA71-SD-23B-092713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/27/13 10:20
Date Received: 10/01/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 78.5 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 08:18 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG640592-1 QC Sample: L1319528-01 Client ID: SA71-SD-VAULT-092713 | | | | | | |
| Solids, Total | 37.4 | 51.8 | % | 32 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319528-01A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1319528-01B | Glass 100ml unpreserved | A | N/A | 2.2 | Y | Absent | TPH-DRO-D(14) |
| L1319528-02A | Glass 100ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-DOD-SB-6020T(180) |
| L1319528-02B | Glass 100ml unpreserved | A | N/A | 2.2 | Y | Absent | TPH-DRO-D(14) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters:* Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisison on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

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| | |
|------------------------|----------------------|
| Westborough, MA | Mansfield, MA |
| TEL: 508-898-9220 | TEL: 508-822-9300 |
| FAX: 508-898-9193 | FAX: 508-822-3288 |

Client Information

Client: Sovereign Consulting Inc.
Address: 4 OPEN SQUARE WAY
HOLYOKE MA
Phone: 413-540-0650

Fax: _____
Email: RLEARY@SOVCON.COM

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

Project Name: DEVENS

Project Location: PLOW SHOP POND

Project #: AC001.005

Project Manager: RACHEL LEARY

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date:

48 HR 7AT
Time:

| ALPHA Lab ID | Sample ID | Collection | Sample | Sampler's |
|--------------|-----------|------------|--------|-----------|
|--------------|-----------|------------|--------|-----------|

[illegible]

SAMPLE HANDLING

Filtration

☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

| Sample Specific Comments |
|---|
| <p>1. The sample is a 100% pure substance, as indicated by the single sharp peak in the mass spectrum.</p> <p>2. The molecular ion peak is observed at m/z 100, which is consistent with the molecular formula C₈H₈.</p> <p>3. The base peak is at m/z 77, which is characteristic of the phenyl cation (C₆H₅⁺).</p> <p>4. The fragmentation pattern is consistent with the structure of toluene (C₆H₅CH₃).</p> |

TOTAL # BOTTLES

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Form 101-020-112 (rev. 5-JAN-12)

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ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319814 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/07/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|-----------------------|----------------------------|---------------------------------|
| L1319814-01 | RC-SD-06-001-100413 | Not Specified | 10/04/13 11:30 |
| L1319814-02 | RC-SD-07-001-100413 | Not Specified | 10/04/13 11:35 |
| L1319814-03 | RC-SD-08-001-100413 | Not Specified | 10/04/13 11:40 |
| L1319814-04 | RC-SD-11-001-100413 | Not Specified | 10/04/13 11:45 |
| L1319814-05 | RC-SD-12-001-100413 | Not Specified | 10/04/13 11:50 |
| L1319814-06 | RC-SD-17-001-100413 | Not Specified | 10/04/13 11:55 |
| L1319814-07 | EB-100413-001 | Not Specified | 10/04/13 12:00 |
| L1319814-08 | SA71-SD-23-001-100413 | Not Specified | 10/04/13 11:35 |
| L1319814-09 | SA71-SD-22-001-100413 | Not Specified | 10/04/13 11:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319814-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319814-07: The initial calibration blank and continuing calibration blank have concentrations above the

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative (continued)

reporting limit for arsenic. Since the samples were below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.


The WG641402-5 MSD recovery, performed on L1319814-08, is below the acceptance criteria for antimony (34%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1319814-08) should be qualified as "J" for this analyte.

The WG641402-4/-5 MS/MSD RPD, performed on L1319814-08, is above the acceptance criteria for antimony (21%).

The WG641402-3 Laboratory Duplicate RPD, performed on L1319814-08, is outside the acceptance criteria for antimony (101%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/07/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
 Client ID: RC-SD-06-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/04/13 11:30
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 399 | Q | mg/kg | 0.278 | 0.034 | 2 | 10/04/13 17:00 | 10/07/13 11:11 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-02
 Client ID: RC-SD-07-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 10%

Date Collected: 10/04/13 11:35
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 128 | Q | mg/kg | 0.258 | 0.032 | 2 | 10/04/13 17:00 | 10/07/13 11:11 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
Client ID: RC-SD-08-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/04/13 11:40
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 98.0 | Q | mg/kg | 0.268 | 0.033 | 2 | 10/04/13 17:00 | 10/07/13 11:14 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-04
 Client ID: RC-SD-11-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/04/13 11:45
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 65.2 | Q | mg/kg | 0.269 | 0.033 | 2 | 10/04/13 17:00 | 10/07/13 11:15 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
 Client ID: RC-SD-12-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 11%

Date Collected: 10/04/13 11:50
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 78.3 | Q | mg/kg | 0.259 | 0.032 | 2 | 10/04/13 17:00 | 10/07/13 11:16 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
Client ID: RC-SD-17-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 9%

Date Collected: 10/04/13 11:55
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 113 | Q | mg/kg | 0.284 | 0.035 | 2 | 10/04/13 17:00 | 10/07/13 11:16 | EPA 3050B | 1,6020A | PD |

N/A

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-07
Client ID: EB-100413-001
Sample Location: Not Specified
Matrix: Water

Date Collected: 10/04/13 12:00
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1185 | J | ug/l | 0.5000 | 0.0260 | 1 | | 10/07/13 11:56 | EPA 3020A | 1,6020A | PD |
| Arsenic, Total | 0.1907 | JQ | ug/l | 0.5000 | 0.0850 | 1 | 10/04/13 16:40 | 10/07/13 10:32 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
 Client ID: SA71-SD-23-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 91%

Date Collected: 10/04/13 11:35
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 2.64 | | mg/kg | 0.035 | 0.006 | 2 | 10/04/13 17:00 | 10/07/13 12:06 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
 Client ID: SA71-SD-22-001-100413
 Sample Location: Not Specified
 Matrix: Sediment
 Percent Solids: 74%

Date Collected: 10/04/13 11:30
 Date Received: 10/04/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 5.98 | | mg/kg | 0.042 | 0.007 | 2 | 10/04/13 17:00 | 10/07/13 12:10 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641398-1 | | | | | | | | | | |
| Arsenic, Total | 0.1797 | J | ug/l | 0.5000 | 0.0850 | 1 | 10/04/13 16:40 | 10/07/13 10:27 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641399-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 10/04/13 16:40 | 10/07/13 11:54 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641401-1 | | | | | | | | | | |
| Arsenic, Total | 0.023 | J | mg/kg | 0.050 | 0.006 | 2 | 10/04/13 17:00 | 10/07/13 10:59 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 08-09 Batch: WG641402-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 10/04/13 17:00 | 10/07/13 12:05 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641398-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641399-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641401-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 104 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08-09 Batch: WG641402-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis **Batch Quality Control**

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-4 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | | | | | | | |
| Arsenic, Total | 0.1907J | 500 | 501.1 | 100 | | - | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-4 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | | | | | | | |
| Antimony, Total | 0.1185J | 40 | 42.83 | 107 | | - | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-4 WG641401-5 QC Sample: L1319783-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 221. | 214 | 434 | 99 | | 427 | 96 | | 80-120 | 2 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-4 WG641402-5 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413 | | | | | | | | | | | | |
| Antimony, Total | 2.64 | 1.41 | 3.85 | 86 | | 3.12 | 34 | Q | 80-120 | 21 | Q | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-3 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | |
| Arsenic, Total | 0.1907J | 0.1441J | ug/l | NC | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-3 QC Sample: L1319814-07 Client ID: EB-100413-001 | | | | | | |
| Antimony, Total | 0.1185J | ND | ug/l | NC | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-3 QC Sample: L1319783-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 221. | 224 | mg/kg | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-3 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413 | | | | | | |
| Antimony, Total | 2.64 | 8.04 | mg/kg | 101 | Q | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
Client ID: RC-SD-06-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.0 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-02
Client ID: RC-SD-07-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.4 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
Client ID: RC-SD-08-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:40
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.3 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-04
Client ID: RC-SD-11-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:45
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 11.2 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
Client ID: RC-SD-12-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:50
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 10.8 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
Client ID: RC-SD-17-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:55
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 9.37 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
Client ID: SA71-SD-23-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 91.3 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
Client ID: SA71-SD-22-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 74.4 | | % | 0.100 | 0.100 | 1 | - | 10/07/13 13:00 | 30,2540G | JW |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641760-1 QC Sample: L1319814-01 Client ID: RC-SD-06-001-100413 | | | | | | |
| Solids, Total | 10.0 | 10.2 | % | 2 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|---|
| L1319814-01A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-02A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-03A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-04A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-05A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-06A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319814-07A | Plastic 250ml HNO3 preserved | A | <2 | 2.2 | Y | Absent | A2-DOD-SB-6020T(180),A2-DOD-AS-6020T(180) |
| L1319814-08A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1319814-09A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.


Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

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|---|--|--|--|---|--|--|-----------------------|---|
| MANSFIELD CHAIN OF CUSTODY | | | | | | PAGE | OF | |
|  | | Project Information | | | | Date Rec'd in Lab: | ALPHA Job #: L1319814 | |
| Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193 | | Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288 | | Project Name: DEVENS | | Report Information Data Deliverables | | Billing Information |
| Client Information | | Project Location: | | Project #: | | <input type="checkbox"/> FAX <input checked="" type="checkbox"/> EMAIL | | <input checked="" type="checkbox"/> Same as Client info PO #: |
| Client: Sovereign Consulting Inc. | | Project #: | | Project Manager: | | <input checked="" type="checkbox"/> ADEx <input type="checkbox"/> Add'l Deliverables | | |
| Address: 4 OPEN SQUARE WAY | | Project Manager: | | ALPHA Quote #: | | Regulatory Requirements/Report Limits | | |
| HOLYOKE MA | | Project Manager: | | Turn-Around Time | | State/Fed Program | | Criteria |
| Phone: 413-540-0650 | | Project Manager: | | Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> (ONLY IF PRE-APPROVED) | | | | |
| Fax: | | Due Date: | | Time: | | ANALYSIS | | |
| Email: RLEARY@SOVCON.COM | | Other Project Specific Requirements/Comments/Detection Limits: | | | | SAMPLE HANDLING | | |
| These samples have been Previously analyzed by Alpha | | MS/MSD (at unit cost) will be omitted unless you check here | | | | Filtration | | |
| | | | | | | <input type="checkbox"/> Done | | |
| | | | | | | <input type="checkbox"/> Not Needed | | |
| | | | | | | <input type="checkbox"/> Lab to do | | |
| | | | | | | Preservation | | |
| | | | | | | <input type="checkbox"/> Lab to do | | |
| | | | | | | (Please specify below) | | |
| | | | | | | Sample Specific Comments | | |
| | | | | | | TOTAL # BOTTLES | | |
| ALPHA Lab ID | | Sample ID | | Collection | | Sample | | Sampler's |
| 19814 | | RC-SD-06-001-p0413 | | 10-04-13 | | 1130 | | SD EF |
| 21 | | RC-SD-07-001-100413 | | 1135 | | | | |
| 22 | | RC-SD-08-001-100413 | | 1140 | | | | |
| 23 | | RC-SD-11-001-100413 | | 1145 | | | | |
| 24 | | RC-SD-12-001-100413 | | 1150 | | | | |
| 25 | | RC-SD-17-001-100413 | | 1155 | | | | |
| 26 | | EB-100413-001 | | 1200 | | AQ | | |
| 27 | | SA71-SD-22-001-100413 | | 1130 | | SD PBL | | |
| 28 | | SA71-SD-23-001-100413 | | 1135 | | 3D PBL | | |
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ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1320192 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/10/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------------|----------------------------|---------------------------------|
| L1320192-01 | SA-71-SD-24-001-100913 | PLOW SHOP POND | 10/09/13 08:55 |
| L1320192-02 | SA-71-SD-23-002-100913 | PLOW SHOP POND | 10/09/13 09:05 |
| L1320192-03 | SA-71-SD-22-002-100913 | PLOW SHOP POND | 10/09/13 09:10 |
| L1320192-04 | SA-71-SD-21-001-100913 | PLOW SHOP POND | 10/09/13 09:20 |
| L1320192-05 | SA-71-SD-20-001-100913 | PLOW SHOP POND | 10/09/13 09:25 |
| L1320192-06 | SA-71-SD-19-001-100913 | PLOW SHOP POND | 10/09/13 09:45 |
| L1320192-07 | FD-100913-01 | PLOW SHOP POND | 10/09/13 08:55 |
| L1320192-08 | EB-100913-01 | PLOW SHOP POND | 10/09/13 09:30 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site.

Metals

The WG642617-4/-5 MS/MSD recoveries, performed on L1320192-01, are below the acceptance criteria for antimony (32%/44%); however, the associated LCS recovery was within criteria. No further action was taken.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13


Case Narrative (continued)

The parent sample (L1320192-01) should be qualified as "J" for this analyte.

The WG642617-3 Laboratory Duplicate RPD, performed on L1320192-01, is outside the acceptance criteria for antimony (36%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the Laboratory Duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/10/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-01
 Client ID: SA-71-SD-24-001-100913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 71%

Date Collected: 10/09/13 08:55
 Date Received: 10/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 1.70 | | mg/kg | 0.038 | 0.007 | 2 | 10/09/13 16:41 | 10/10/13 16:00 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-02
 Client ID: SA-71-SD-23-002-100913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 73%

Date Collected: 10/09/13 09:05
 Date Received: 10/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 3.41 | | mg/kg | 0.039 | 0.007 | 2 | 10/09/13 16:41 | 10/10/13 16:04 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-03
 Client ID: SA-71-SD-22-002-100913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 70%

Date Collected: 10/09/13 09:10
 Date Received: 10/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.04 | | mg/kg | 0.036 | 0.006 | 2 | 10/09/13 16:41 | 10/10/13 16:05 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-04
 Client ID: SA-71-SD-21-001-100913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 67%

Date Collected: 10/09/13 09:20
 Date Received: 10/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 7.88 | | mg/kg | 0.041 | 0.007 | 2 | 10/09/13 16:41 | 10/10/13 16:06 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-05
 Client ID: SA-71-SD-20-001-100913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 76%

Date Collected: 10/09/13 09:25
 Date Received: 10/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 46.3 | | mg/kg | 0.352 | 0.062 | 20 | 10/09/13 16:41 | 10/10/13 16:08 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-06
 Client ID: SA-71-SD-19-001-100913
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 56%

Date Collected: 10/09/13 09:45
 Date Received: 10/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 6.22 | | mg/kg | 0.048 | 0.008 | 2 | 10/09/13 16:41 | 10/10/13 16:09 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-07
 Client ID: FD-100913-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 69%

Date Collected: 10/09/13 08:55
 Date Received: 10/09/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 1.20 | | mg/kg | 0.037 | 0.007 | 2 | 10/09/13 16:41 | 10/10/13 16:10 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-08
Client ID: EB-100913-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/09/13 09:30
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 10/09/13 16:41 | 10/10/13 15:50 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 08 Batch: WG642615-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 10/09/13 16:41 | 10/10/13 15:49 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG642617-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 10/09/13 16:41 | 10/10/13 15:58 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 08 Batch: WG642615-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 101 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG642617-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 100 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|

Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG642615-4 QC Sample: L1320192-08 Client ID: EB-100913-01

| | | | | | | | | | | | | |
|-----------------|----|----|-------|-----|--|---|---|--|--------|---|--|----|
| Antimony, Total | ND | 10 | 10.05 | 100 | | - | - | | 80-120 | - | | 20 |
|-----------------|----|----|-------|-----|--|---|---|--|--------|---|--|----|

Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG642617-4 WG642617-5 QC Sample: L1320192-01 Client ID: SA-71-SD-24-001-100913

| | | | | | | | | | | | | |
|-----------------|------|------|------|----|---|------|----|---|--------|---|--|----|
| Antimony, Total | 1.70 | 1.52 | 2.19 | 32 | Q | 2.36 | 44 | Q | 80-120 | 7 | | 20 |
|-----------------|------|------|------|----|---|------|----|---|--------|---|--|----|

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG642615-3 QC Sample: L1320192-08 Client ID: EB-100913-01 | | | | | | |
| Antimony, Total | ND | ND | ug/l | NC | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG642617-3 QC Sample: L1320192-01 Client ID: SA-71-SD-24-001-100913 | | | | | | |
| Antimony, Total | 1.70 | 1.18 | mg/kg | 36 | Q | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-01
Client ID: SA-71-SD-24-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 08:55
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 71.3 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 16:33 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-02
Client ID: SA-71-SD-23-002-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:05
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 73.0 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 16:33 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-03
Client ID: SA-71-SD-22-002-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:10
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 70.4 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 16:33 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-04
Client ID: SA-71-SD-21-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:20
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 67.0 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 16:33 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-05
Client ID: SA-71-SD-20-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:25
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 76.3 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 16:33 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-06
Client ID: SA-71-SD-19-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:45
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 56.0 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 16:33 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-07
Client ID: FD-100913-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 08:55
Date Received: 10/09/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 68.9 | | % | 0.100 | 0.100 | 1 | - | 10/09/13 16:33 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1320192
Report Date: 10/10/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG642600-1 QC Sample: L1320192-01 Client ID: SA-71-SD-24-001-100913 | | | | | | |
| Solids, Total | 71.3 | 68.0 | % | 5 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1320192-01A | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-01B | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-01C | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-02A | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-03A | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-04A | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-05A | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-06A | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-07A | Amber 100ml unpreserved | A | N/A | 12.5 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320192-08A | Plastic 250ml HNO3 preserved | A | <2 | 12.5 | Y | Absent | A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 36 of 39 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

[illegible]



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1320452 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/15/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|-----------------------|----------------------------|---------------------------------|
| L1320452-01 | SA71-SD-20-002-101113 | PLOW SHOP POND | 10/11/13 11:30 |
| L1320452-02 | FD-101113-01 | PLOW SHOP POND | 10/11/13 11:30 |
| L1320452-03 | EB-101113-01 | PLOW SHOP POND | 10/11/13 11:45 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Total Metals

The WG643632-4/-5 MS/MSD recoveries for antimony (542%/415%), performed on L1320452-01, do not apply because the sample concentration is greater than four times the spike amount added.

The WG643632-3 Laboratory Duplicate RPD, performed on L1320452-01, is outside the acceptance criteria for antimony (22%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate. The parent sample (L1320452-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/15/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-01
 Client ID: SA71-SD-20-002-101113
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 65%

Date Collected: 10/11/13 11:30
 Date Received: 10/11/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 11.0 | | mg/kg | 0.247 | 0.044 | 10 | 10/14/13 10:00 | 10/15/13 17:00 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-02
 Client ID: FD-101113-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 63%

Date Collected: 10/11/13 11:30
 Date Received: 10/11/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 22.9 | | mg/kg | 0.252 | 0.044 | 10 | 10/14/13 10:00 | 10/15/13 17:04 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-03
Client ID: EB-101113-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/11/13 11:45
Date Received: 10/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Antimony, Total | 0.1244 | J | ug/l | 0.5000 | 0.0260 | 1 | 10/14/13 10:00 | 10/15/13 16:37 | EPA 3020A | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG643632-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/kg | 0.050 | 0.009 | 2 | 10/14/13 10:00 | 10/15/13 16:45 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|--------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 03 Batch: WG643633-1 | | | | | | | | | | |
| Antimony, Total | ND | | ug/l | 0.5000 | 0.0260 | 1 | 10/14/13 10:00 | 10/15/13 16:35 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3020A



Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG643632-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 110 | | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG643633-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Antimony, Total | 106 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|

Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG643632-4 WG643632-5 QC Sample: L1320452-01 Client ID: SA71-SD-20-002-101113

| | | | | | | | | | | | | |
|-----------------|------|------|------|-----|---|------|-----|---|--------|----|--|----|
| Antimony, Total | 11.0 | 1.97 | 21.7 | 542 | Q | 18.7 | 415 | Q | 80-120 | 15 | | 20 |
|-----------------|------|------|------|-----|---|------|-----|---|--------|----|--|----|

Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG643633-4 QC Sample: L1320452-03 Client ID: EB-101113-01

| | | | | | | | | | | | | |
|-----------------|---------|----|-------|-----|--|---|---|--|--------|---|--|----|
| Antimony, Total | 0.1244J | 40 | 43.57 | 109 | | - | - | | 80-120 | - | | 20 |
|-----------------|---------|----|-------|-----|--|---|---|--|--------|---|--|----|

Lab Duplicate Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG643632-3 QC Sample: L1320452-01 Client ID: SA71-SD-20-002-101113 | | | | | | |
| Antimony, Total | 11.0 | 8.79 | mg/kg | 22 | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG643633-3 QC Sample: L1320452-03 Client ID: EB-101113-01 | | | | | | |
| Antimony, Total | 0.1244J | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-01
Client ID: SA71-SD-20-002-101113
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/11/13 11:30
Date Received: 10/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 65.4 | | % | 0.100 | 0.100 | 1 | - | 10/12/13 09:24 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-02
Client ID: FD-101113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/11/13 11:30
Date Received: 10/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 63.2 | | % | 0.100 | 0.100 | 1 | - | 10/12/13 09:24 | 30,2540G | JW |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG643434-1 QC Sample: L1320452-01 Client ID: SA71-SD-20-002-101113 | | | | | | |
| Solids, Total | 65.4 | 65.6 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1320452-01A | Glass 100ml unpreserved | A | N/A | 3.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320452-02A | Glass 100ml unpreserved | A | N/A | 3.4 | Y | Absent | A2-TS(7),A2-DOD-SB-6020T(180) |
| L1320452-03A | Plastic 250ml HNO3 preserved | A | <2 | 3.4 | Y | Absent | A2-DOD-SB-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 22 of 28 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



CHAIN OF CUSTODY

PAGE OF

Project Information

Westborough, MA Mansfield, MA
TEL: 508-898-9220 TEL: 508-822-8300
FAX: 508-898-9193 FAX: 508-822-3288

Project Name: Devens

Client Information

Client: Sovereign Consulting Inc.

Project Location: Plow Shop Pond

Address: 4 Open Square Way, Ste. 307

Project #: AC001.005

Holyoke, MA 01040

ALPHA Quote #:

Phone: 413-540-0650

Turn-Around Time

Fax: 413-540-0656

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Email: RLeary@sovcon.com

Due Date: Time:

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 10/11/13

ALPHA Job #: L1320452

Report Information Data Deliverables

☐ FAX

☒ EMAIL

☒ ADEX

☐ Add'l Deliverables

Billing Information

☒ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes

☒ No

Are MCP Analytical Methods Required?

☐ Yes

☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

SAMPLE HANDLING

Filtration

☐ Done

☐ Not Needed

☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler's Initials | | | | | | | | | | | | | | | | |
|--------------------------------|-----------------------|------------|-------|--------------------|--------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| | | Date | Time | | | | | | | | | | | | | | | | | | |
| 20452.1 | SA71-SD-20-002-101113 | 10/11/13 | 11:30 | sed | WJB | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2 | FD-101113-01 | 10/11/13 | 11:30 | sed | WJB | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3 | EB-101113-01 | 10/11/13 | 11:45 | d.H ₂ O | WJB | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
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| | | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
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PLEASE ANSWER QUESTIONS ABOVE!

Container Type

Preservative

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(1)
(rev. 5-JAN-12)

Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms

APPENDIX F

Waste Characterization Analytical Data

(See CD Included Separately)



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L1311337 |
| Client: | Sovereign Consulting 16 Chestnut Street Suite 520 Foxborough, MA 02035 |
| ATTN: | Rachel Leary |
| Phone: | (508) 339-3200 |
| Project Name: | FORT DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 07/01/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311337
Report Date: 07/01/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1311337-01 | RC-WC-061713-08 | DEVENS, MA | 06/17/13 14:10 |
| L1311337-02 | RC-WC-061713-01 | DEVENS, MA | 06/17/13 11:20 |
| L1311337-03 | RC-WC-061713-02 | DEVENS, MA | 06/17/13 11:40 |
| L1311337-04 | RC-WC-061713-04 | DEVENS, MA | 06/17/13 12:35 |
| L1311337-05 | RC-WC-061713-05 | DEVENS, MA | 06/17/13 13:10 |
| L1311337-06 | RC-WC-061713-06 | DEVENS, MA | 06/17/13 13:30 |
| L1311337-07 | RC-WC-061713-07 | DEVENS, MA | 06/17/13 13:45 |

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311337
Report Date: 07/01/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

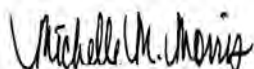
HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 07/01/13

METALS

Project Name: FORT DEVENS

Lab Number: L1311337

Project Number: AC001.005

Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-01
 Client ID: RC-WC-061713-08
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 14:10
 Date Received: 06/17/13
 Field Prep: Not Specified
 TCLP/SPLP Ext. Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 06/26/13 10:58 | 06/27/13 12:10 | EPA 3015 | 1,6010C | MG |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 12:10 | EPA 3015 | 1,6010C | MG |
| Mercury, TCLP | ND | | mg/l | 0.0010 | -- | 1 | 06/28/13 15:40 | 07/01/13 08:49 | EPA 7470A | 1,7470A | JH |



Project Name: FORT DEVENS

Lab Number: L1311337

Project Number: AC001.005

Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-02

Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 06/26/13 10:58 | 06/27/13 13:52 | EPA 3015 | 1,6010C | MG |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 13:52 | EPA 3015 | 1,6010C | MG |



Project Name: FORT DEVENS**Lab Number:** L1311337**Project Number:** AC001.005**Report Date:** 07/01/13**SAMPLE RESULTS**

Lab ID: L1311337-03

Date Collected: 06/17/13 11:40

Client ID: RC-WC-061713-02

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 06/26/13 10:58 | 06/27/13 15:35 | EPA 3015 | 1,6010C | MG |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 15:35 | EPA 3015 | 1,6010C | MG |



Project Name: FORT DEVENS**Lab Number:** L1311337**Project Number:** AC001.005**Report Date:** 07/01/13**SAMPLE RESULTS**

Lab ID: L1311337-04

Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 14:35 | EPA 3015 | 1,6010C | MG |



Project Name: FORT DEVENS

Lab Number: L1311337

Project Number: AC001.005

Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-05

Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 06/26/13 10:58 | 06/27/13 14:38 | EPA 3015 | 1,6010C | MG |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 14:38 | EPA 3015 | 1,6010C | MG |



Project Name: FORT DEVENS

Lab Number: L1311337

Project Number: AC001.005

Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-06

Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 14:49 | EPA 3015 | 1,6010C | MG |



Project Name: FORT DEVENS

Lab Number: L1311337

Project Number: AC001.005

Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-07

Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 06/26/13 10:58 | 06/27/13 14:05 | EPA 3015 | 1,6010C | KL |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 14:05 | EPA 3015 | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311337

Project Number: AC001.005

Report Date: 07/01/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-07 Batch: WG617718-1 | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 06/26/13 10:58 | 06/27/13 11:32 | 1,6010C | MG |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 06/26/13 10:58 | 06/27/13 11:32 | 1,6010C | MG |

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 06/25/13 16:20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|-----|--------------------|------------------|------------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG618437-1 | | | | | | | | | | |
| Mercury, TCLP | ND | | mg/l | 0.0010 | -- | 1 | 06/28/13 15:40 | 07/01/13 08:45 | 1,7470A | JH |

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 06/25/13 16:20



Lab Control Sample Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311337

Report Date: 07/01/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-07 Batch: WG617718-2 | | | | | | | | |
| Arsenic, TCLP | 108 | | - | | 75-125 | - | | 20 |
| Chromium, TCLP | 110 | | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG618437-2 | | | | | | | | |
| Mercury, TCLP | 97 | | - | | 80-120 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311337

Report Date: 07/01/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG617718-4 QC Sample: L1311337-01 Client ID: RC-WC-061713-08 | | | | | | | | | | | | |
| Arsenic, TCLP | ND | 1.2 | 1.4 | 117 | | - | - | | 75-125 | - | | 20 |
| Chromium, TCLP | ND | 2 | 2.0 | 100 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 QC Batch ID: WG618437-4 QC Sample: L1311337-01 Client ID: RC-WC-061713-08 | | | | | | | | | | | | |
| Mercury, TCLP | ND | 0.025 | 0.0267 | 107 | | - | - | | 70-130 | - | | 20 |

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1311337
Report Date: 07/01/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG617718-3 QC Sample: L1311337-01 Client ID: RC-WC-061713-08 | | | | | | |
| Arsenic, TCLP | ND | ND | mg/l | NC | | 20 |
| Chromium, TCLP | ND | ND | mg/l | NC | | 20 |
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 QC Batch ID: WG618437-3 QC Sample: L1311337-01 Client ID: RC-WC-061713-08 | | | | | | |
| Mercury, TCLP | ND | ND | mg/l | NC | | 20 |

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311337

Report Date: 07/01/13

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|----------------------------------|--------|-----|---------------|------|--------|--------------------------------|
| L1311337-01A | Amber 250ml unpreserved | A | N/A | 3.7 | Y | Absent | - |
| L1311337-01X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.7 | Y | Absent | AS-CI(180),HG-C(28),CR-CI(180) |
| L1311337-02A | Amber 250ml unpreserved | A | N/A | 3.7 | Y | Absent | - |
| L1311337-02X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.7 | Y | Absent | AS-CI(180),CR-CI(180) |
| L1311337-03A | Amber 250ml unpreserved | A | N/A | 3.7 | Y | Absent | - |
| L1311337-03X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.7 | Y | Absent | AS-CI(180),CR-CI(180) |
| L1311337-04A | Amber 250ml unpreserved | A | N/A | 3.7 | Y | Absent | - |
| L1311337-04X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.7 | Y | Absent | CR-CI(180) |
| L1311337-05A | Amber 250ml unpreserved | A | N/A | 3.7 | Y | Absent | - |
| L1311337-05X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.7 | Y | Absent | AS-CI(180),CR-CI(180) |
| L1311337-06A | Amber 250ml unpreserved | A | N/A | 3.7 | Y | Absent | - |
| L1311337-06X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.7 | Y | Absent | CR-CI(180) |
| L1311337-07A | Amber 250ml unpreserved | A | N/A | 3.7 | Y | Absent | - |
| L1311337-07X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.7 | Y | Absent | AS-CI(180),CR-CI(180) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS**Lab Number:** L1311337**Project Number:** AC001.005**Report Date:** 07/01/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report



Project Name: FORT DEVENS**Lab Number:** L1311337**Project Number:** AC001.005**Report Date:** 07/01/13**Data Qualifiers**

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.**P** - The RPD between the results for the two columns exceeds the method-specified criteria.**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)**R** - Analytical results are from sample re-analysis.**RE** - Analytical results are from sample re-extraction.**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).**ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311337
Report Date: 07/01/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised June 17, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. *Organic Parameters:* SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. *Organic Parameters:* EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NJ-DEP.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether, Ethyl tert-butyl ether, Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE). **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, 1,3,5-Trimethylbenzene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. **EPA 8015C:** TPH. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

**320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300**

Client Information

Client: Sovereign Consulting
Address: 16 Chestnut A Suite 525
Foxboro, MA 02035
Phone: 508-339-3200

Email: RLeary@80vcon.com

Additional Project Information:
Only run TCP if fails 20x rule.

Project Information

Project Name: Fort Devens

Project Location: Devens, MA

Project #: AC001,005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: 7/1/13 ~~6/24/13~~

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

| | |
|-------|---------------------|
| PO #: | Same as Client info |
|-------|---------------------|

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods
 ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State / Fed Program _____ Criteria _____

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler Initials | VOC | Semi-VOC | METAL | METAL | EPH: L | VPH: L | Xylenes | THN | PHT | Phen | Flu | HCB | TCDF | TCDF | Sample Comments |
|--------------------------------|-----------------|------------|------|---------------|------------------|-----|----------|-------|-------|--------|--------|---------|-----|-----|------|-----|-----|------|------|-----------------|
| | | Date | Time | | | | | | | | | | | | | | | | | |
| 116-001 | RC-WC-061713-01 | 6/12/13 | 1120 | SE | LMS | X | X | | | | | X | X | X | X | X | X | X | X | |
| 03 02 | RC-WC-061713-02 | | 1140 | | | | | | | | | | | | | | | X | X | |
| 03 03 | RC-WC-061713-03 | | 1210 | | | | | | | | | | | | | | | | | |
| 04 04 | RC-WC-061713-04 | | 1235 | | | | | | | | | | | | | | | | X | |
| 05 05 | RC-WC-061713-05 | | 1310 | | | | | | | | | | | | | | | X | X | |
| 06 06 | RC-WC-061713-06 | | 1330 | | | | | | | | | | | | | | | | X | |
| 07 07 | RC-WC-061713-07 | | 1345 | | | | | | | | | | | | | | | X | X | |
| 08 08 | RC-WC-061713-08 | | 1410 | | | | | | | | | | | | | | | X | X | +TCDF Hg |

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 Q= Other

Container Type

Preservative

4

Received By:

| | | |
|---|---|---|
| A | A | A |
|---|---|---|

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L1311048 |
| Client: | Sovereign Consulting 16 Chestnut Street Suite 520 Foxborough, MA 02035 |
| ATTN: | Rachel Leary |
| Phone: | (508) 339-3200 |
| Project Name: | FORT DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 06/26/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1311048-01 | RC-WC-061713-01 | DEVENS, MA | 06/17/13 11:20 |
| L1311048-02 | RC-WC-061713-02 | DEVENS, MA | 06/17/13 11:40 |
| L1311048-03 | RC-WC-061713-03 | DEVENS, MA | 06/17/13 12:10 |
| L1311048-04 | RC-WC-061713-04 | DEVENS, MA | 06/17/13 12:35 |
| L1311048-05 | RC-WC-061713-05 | DEVENS, MA | 06/17/13 13:10 |
| L1311048-06 | RC-WC-061713-06 | DEVENS, MA | 06/17/13 13:30 |
| L1311048-07 | RC-WC-061713-07 | DEVENS, MA | 06/17/13 13:45 |
| L1311048-08 | RC-WC-061713-08 | DEVENS, MA | 06/17/13 14:10 |

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Case Narrative (continued)

Sample Receipt

Several samples were found to have low percent solids values (<10%) resulting in elevated reporting limits.

Volatile Organics

L1311048-03: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (29%) and the surrogate recovery for 4-Bromofluorobenzene (149%) were outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (43%). The results of both analyses are reported.

L1311048-04: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (46%) was below the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (40%). The results of both analyses are reported.

L1311048-05: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (39%) and the surrogate recovery for 4-Bromofluorobenzene (132%) were outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (47%). The results of both analyses are reported.

L1311048-06: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (32%) and the surrogate recovery for 4-Bromofluorobenzene (141%) were outside the acceptance criteria; however, re-analysis achieved similar results for 1,4-Dichlorobenzene-d4 (47%). The results of both analyses are reported.

L1311048-07: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (47%) was outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (37%). The results of both analyses are reported.

L1311048-08: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (31%) and the surrogate recovery for 4-Bromofluorobenzene (131%) were outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (39%). The results of both analyses are reported.

PCBs

L1311048-07 has elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample.

Metals

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Case Narrative (continued)

L1311048-03 has elevated detection limits for all analytes, except Mercury, due to the analytical dilution required by the sample matrix.

The WG616037-4 MS recovery, performed on L1311048-03, is below the acceptance criteria for Mercury (19%). A post digestion spike was performed with an acceptable recovery of 105%.

The WG616037-3 Laboratory Duplicate RPD, performed on L1311048-03, is outside the acceptance criteria for Mercury (94%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the Laboratory Duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 06/26/13

ORGANICS

VOLATILES

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 12:11
Analyst: BN
Percent Solids: 21%

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 41 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 6.2 | -- | 1 |
| Chloroform | ND | | ug/kg | 6.2 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 4.1 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 14 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 4.1 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 6.2 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 4.1 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 4.1 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 21 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 4.1 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 4.1 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 4.1 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 4.1 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 4.1 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 21 | -- | 1 |
| Bromoform | ND | | ug/kg | 16 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 4.1 | -- | 1 |
| Benzene | 4.7 | | ug/kg | 4.1 | -- | 1 |
| Toluene | ND | | ug/kg | 6.2 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 4.1 | -- | 1 |
| Chloromethane | ND | | ug/kg | 21 | -- | 1 |
| Bromomethane | ND | | ug/kg | 8.2 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 8.2 | -- | 1 |
| Chloroethane | ND | | ug/kg | 8.2 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 4.1 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 6.2 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 4.1 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 21 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 21 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 21 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01

Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 8.2 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 8.2 | -- | 1 |
| o-Xylene | ND | | ug/kg | 8.2 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 8.2 | -- | 1 |
| cis-1,2-Dichloroethene | 4.8 | | ug/kg | 4.1 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 41 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 41 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 41 | -- | 1 |
| Styrene | ND | | ug/kg | 8.2 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 41 | -- | 1 |
| Acetone | 320 | | ug/kg | 150 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 41 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 41 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 41 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 41 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 41 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 41 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 16 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 21 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 82 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 21 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 16 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 21 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 4.1 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 21 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 4.1 | -- | 1 |
| sec-Butylbenzene | 8.9 | | ug/kg | 4.1 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 21 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 21 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 21 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 21 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 21 | -- | 1 |
| Isopropylbenzene | 4.8 | | ug/kg | 4.1 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 4.1 | -- | 1 |
| Naphthalene | ND | | ug/kg | 21 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 4.1 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 21 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 21 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 21 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01

Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 21 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 21 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 21 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 102 | | 70-130 |
| 4-Bromofluorobenzene | 128 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 12:38
Analyst: BN
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 70 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 10 | -- | 1 |
| Chloroform | ND | | ug/kg | 10 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 7.0 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 24 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 7.0 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 10 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 7.0 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 7.0 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 35 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 7.0 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 7.0 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 7.0 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 7.0 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 7.0 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 35 | -- | 1 |
| Bromoform | ND | | ug/kg | 28 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 7.0 | -- | 1 |
| Benzene | ND | | ug/kg | 7.0 | -- | 1 |
| Toluene | ND | | ug/kg | 10 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 7.0 | -- | 1 |
| Chloromethane | ND | | ug/kg | 35 | -- | 1 |
| Bromomethane | ND | | ug/kg | 14 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 14 | -- | 1 |
| Chloroethane | ND | | ug/kg | 14 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 7.0 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 10 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 7.0 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 35 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 35 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 35 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
 Client ID: RC-WC-061713-02
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 11:40
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 14 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 14 | -- | 1 |
| o-Xylene | ND | | ug/kg | 14 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 14 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 7.0 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 70 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 70 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 70 | -- | 1 |
| Styrene | ND | | ug/kg | 14 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 70 | -- | 1 |
| Acetone | 470 | | ug/kg | 250 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 70 | -- | 1 |
| 2-Butanone | 140 | | ug/kg | 70 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 70 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 70 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 70 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 70 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 28 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 35 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 140 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 35 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 28 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 35 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 7.0 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 35 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 7.0 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 7.0 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 35 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 35 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 35 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 35 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 35 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 7.0 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 7.0 | -- | 1 |
| Naphthalene | ND | | ug/kg | 35 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 7.0 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 35 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 35 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 35 | -- | 1 |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
 Client ID: RC-WC-061713-02
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 11:40
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 35 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 35 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 35 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 92 | | 70-130 |
| Toluene-d8 | 100 | | 70-130 |
| 4-Bromofluorobenzene | 123 | | 70-130 |
| Dibromofluoromethane | 106 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 13:07
Analyst: BN
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 30 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 4.6 | -- | 1 |
| Chloroform | ND | | ug/kg | 4.6 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 3.0 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 11 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 3.0 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 4.6 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 3.0 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 3.0 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 15 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 3.0 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 3.0 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 3.0 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 3.0 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 3.0 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 15 | -- | 1 |
| Bromoform | ND | | ug/kg | 12 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 3.0 | -- | 1 |
| Benzene | ND | | ug/kg | 3.0 | -- | 1 |
| Toluene | ND | | ug/kg | 4.6 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 3.0 | -- | 1 |
| Chloromethane | ND | | ug/kg | 15 | -- | 1 |
| Bromomethane | ND | | ug/kg | 6.1 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 6.1 | -- | 1 |
| Chloroethane | ND | | ug/kg | 6.1 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 3.0 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 4.6 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 3.0 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 15 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 15 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 15 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
 Client ID: RC-WC-061713-03
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 6.1 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 6.1 | -- | 1 |
| o-Xylene | ND | | ug/kg | 6.1 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 6.1 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 3.0 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 30 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 30 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 30 | -- | 1 |
| Styrene | ND | | ug/kg | 6.1 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 30 | -- | 1 |
| Acetone | 210 | | ug/kg | 110 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 30 | -- | 1 |
| 2-Butanone | 52 | | ug/kg | 30 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 30 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 30 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 30 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 30 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 12 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 15 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 61 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 15 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 12 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 15 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 3.0 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 15 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 3.0 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 3.0 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 15 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 15 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 15 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 15 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 15 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 3.0 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 3.0 | -- | 1 |
| Naphthalene | ND | | ug/kg | 15 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 3.0 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 15 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 15 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 15 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
 Client ID: RC-WC-061713-03
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 15 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 15 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 15 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 97 | | 70-130 |
| Toluene-d8 | 113 | | 70-130 |
| 4-Bromofluorobenzene | 149 | Q | 70-130 |
| Dibromofluoromethane | 111 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03 R
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 16:21
Analyst: BN
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 32 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 4.8 | -- | 1 |
| Chloroform | ND | | ug/kg | 4.8 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 3.2 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 11 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 3.2 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 4.8 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 3.2 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 3.2 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 16 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 3.2 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 3.2 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 3.2 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 3.2 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 3.2 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 16 | -- | 1 |
| Bromoform | ND | | ug/kg | 13 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 3.2 | -- | 1 |
| Benzene | ND | | ug/kg | 3.2 | -- | 1 |
| Toluene | ND | | ug/kg | 4.8 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 3.2 | -- | 1 |
| Chloromethane | ND | | ug/kg | 16 | -- | 1 |
| Bromomethane | ND | | ug/kg | 6.4 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 6.4 | -- | 1 |
| Chloroethane | ND | | ug/kg | 6.4 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 3.2 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 4.8 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 3.2 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 16 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 16 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 16 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03 R

Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 6.4 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 6.4 | -- | 1 |
| o-Xylene | ND | | ug/kg | 6.4 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 6.4 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 3.2 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 32 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 32 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 32 | -- | 1 |
| Styrene | ND | | ug/kg | 6.4 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 32 | -- | 1 |
| Acetone | 130 | | ug/kg | 120 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 32 | -- | 1 |
| 2-Butanone | 36 | | ug/kg | 32 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 32 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 32 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 32 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 32 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 13 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 16 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 64 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 16 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 13 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 16 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 3.2 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 16 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 3.2 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 3.2 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 16 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 16 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 16 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 16 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 16 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 3.2 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 3.2 | -- | 1 |
| Naphthalene | ND | | ug/kg | 16 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 3.2 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 16 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 16 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 16 | -- | 1 |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03 R

Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 16 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 16 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 16 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 84 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 118 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 13:35
Analyst: BN
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 110 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 17 | -- | 1 |
| Chloroform | ND | | ug/kg | 17 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 11 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 40 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 11 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 17 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 11 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 11 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 57 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 11 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 11 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 11 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 11 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 11 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 57 | -- | 1 |
| Bromoform | ND | | ug/kg | 45 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 11 | -- | 1 |
| Benzene | 12 | | ug/kg | 11 | -- | 1 |
| Toluene | ND | | ug/kg | 17 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 11 | -- | 1 |
| Chloromethane | ND | | ug/kg | 57 | -- | 1 |
| Bromomethane | ND | | ug/kg | 23 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 23 | -- | 1 |
| Chloroethane | ND | | ug/kg | 23 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 11 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 17 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 11 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 57 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 57 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 57 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
 Client ID: RC-WC-061713-04
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:35
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 23 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 23 | -- | 1 |
| o-Xylene | ND | | ug/kg | 23 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 23 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 11 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 110 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 110 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 110 | -- | 1 |
| Styrene | ND | | ug/kg | 23 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 110 | -- | 1 |
| Acetone | 880 | | ug/kg | 410 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 110 | -- | 1 |
| 2-Butanone | 240 | | ug/kg | 110 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 110 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 110 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 110 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 110 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 45 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 57 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 230 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 57 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 45 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 57 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 11 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 57 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 11 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 11 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 57 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 57 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 57 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 57 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 57 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 11 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 11 | -- | 1 |
| Naphthalene | ND | | ug/kg | 57 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 11 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 57 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 57 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 57 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
 Client ID: RC-WC-061713-04
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:35
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 57 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 57 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 57 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 95 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 129 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04 R
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 16:49
Analyst: BN
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 79 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 12 | -- | 1 |
| Chloroform | ND | | ug/kg | 12 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 7.9 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 28 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 7.9 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 12 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 7.9 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 7.9 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 39 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 7.9 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 7.9 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 7.9 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 39 | -- | 1 |
| Bromoform | ND | | ug/kg | 32 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| Benzene | 12 | | ug/kg | 7.9 | -- | 1 |
| Toluene | ND | | ug/kg | 12 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| Chloromethane | ND | | ug/kg | 39 | -- | 1 |
| Bromomethane | ND | | ug/kg | 16 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 16 | -- | 1 |
| Chloroethane | ND | | ug/kg | 16 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 7.9 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 12 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 7.9 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 39 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 39 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 39 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04 R

Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 16 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 16 | -- | 1 |
| o-Xylene | ND | | ug/kg | 16 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 16 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 7.9 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 79 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 79 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 79 | -- | 1 |
| Styrene | ND | | ug/kg | 16 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 79 | -- | 1 |
| Acetone | 610 | | ug/kg | 280 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 79 | -- | 1 |
| 2-Butanone | 160 | | ug/kg | 79 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 79 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 79 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 79 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 79 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 32 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 39 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 160 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 39 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 32 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 39 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 39 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 39 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 39 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 39 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 39 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 39 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 7.9 | -- | 1 |
| Naphthalene | ND | | ug/kg | 39 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 39 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 39 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 39 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04 R

Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 39 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 39 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 39 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 85 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 121 | | 70-130 |
| Dibromofluoromethane | 106 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 14:02
Analyst: BN
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 58 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 8.7 | -- | 1 |
| Chloroform | ND | | ug/kg | 8.7 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 5.8 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 20 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 5.8 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 8.7 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 5.8 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 5.8 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 29 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 5.8 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 5.8 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 5.8 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 29 | -- | 1 |
| Bromoform | ND | | ug/kg | 23 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| Benzene | 7.9 | | ug/kg | 5.8 | -- | 1 |
| Toluene | ND | | ug/kg | 8.7 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| Chloromethane | ND | | ug/kg | 29 | -- | 1 |
| Bromomethane | ND | | ug/kg | 12 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 12 | -- | 1 |
| Chloroethane | ND | | ug/kg | 12 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 5.8 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 8.7 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 5.8 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 29 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
 Client ID: RC-WC-061713-05
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 12 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 12 | -- | 1 |
| o-Xylene | ND | | ug/kg | 12 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 12 | -- | 1 |
| cis-1,2-Dichloroethene | 7.5 | | ug/kg | 5.8 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 58 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 58 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 58 | -- | 1 |
| Styrene | ND | | ug/kg | 12 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 58 | -- | 1 |
| Acetone | 610 | | ug/kg | 210 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 58 | -- | 1 |
| 2-Butanone | 180 | | ug/kg | 58 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 58 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 58 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 58 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 58 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 23 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 29 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 120 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 29 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 23 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 29 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 29 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 29 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 29 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 29 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 29 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 29 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 5.8 | -- | 1 |
| Naphthalene | ND | | ug/kg | 29 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 29 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
 Client ID: RC-WC-061713-05
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 29 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 29 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 29 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 110 | | 70-130 |
| 4-Bromofluorobenzene | 132 | Q | 70-130 |
| Dibromofluoromethane | 109 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05 R
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 17:17
Analyst: BN
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 79 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 12 | -- | 1 |
| Chloroform | ND | | ug/kg | 12 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 7.9 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 28 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 7.9 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 12 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 7.9 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 7.9 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 40 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 7.9 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 7.9 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 7.9 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 40 | -- | 1 |
| Bromoform | ND | | ug/kg | 32 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| Benzene | 9.6 | | ug/kg | 7.9 | -- | 1 |
| Toluene | ND | | ug/kg | 12 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| Chloromethane | ND | | ug/kg | 40 | -- | 1 |
| Bromomethane | ND | | ug/kg | 16 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 16 | -- | 1 |
| Chloroethane | ND | | ug/kg | 16 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 7.9 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 12 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 7.9 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 40 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 40 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 40 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05 R

Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 16 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 16 | -- | 1 |
| o-Xylene | ND | | ug/kg | 16 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 16 | -- | 1 |
| cis-1,2-Dichloroethene | 9.2 | | ug/kg | 7.9 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 79 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 79 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 79 | -- | 1 |
| Styrene | ND | | ug/kg | 16 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 79 | -- | 1 |
| Acetone | 770 | | ug/kg | 280 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 79 | -- | 1 |
| 2-Butanone | 220 | | ug/kg | 79 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 79 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 79 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 79 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 79 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 32 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 40 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 160 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 40 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 32 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 40 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 7.9 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 40 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 40 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 40 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 40 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 40 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 40 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 7.9 | -- | 1 |
| Naphthalene | ND | | ug/kg | 40 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 7.9 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 40 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 40 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 40 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05 R

Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 40 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 40 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 40 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 90 | | 70-130 |
| Toluene-d8 | 101 | | 70-130 |
| 4-Bromofluorobenzene | 115 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 14:30
Analyst: BN
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 17 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 2.5 | -- | 1 |
| Chloroform | ND | | ug/kg | 2.5 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.7 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 5.8 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.7 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 2.5 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 1.7 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 1.7 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 8.4 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.7 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 1.7 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 1.7 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.7 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 1.7 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 8.4 | -- | 1 |
| Bromoform | ND | | ug/kg | 6.7 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 1.7 | -- | 1 |
| Benzene | ND | | ug/kg | 1.7 | -- | 1 |
| Toluene | ND | | ug/kg | 2.5 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 1.7 | -- | 1 |
| Chloromethane | ND | | ug/kg | 8.4 | -- | 1 |
| Bromomethane | ND | | ug/kg | 3.3 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 3.3 | -- | 1 |
| Chloroethane | ND | | ug/kg | 3.3 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.7 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 2.5 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 1.7 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 8.4 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 8.4 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 8.4 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
 Client ID: RC-WC-061713-06
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:30
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 3.3 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 3.3 | -- | 1 |
| o-Xylene | ND | | ug/kg | 3.3 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 3.3 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.7 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 17 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 17 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 17 | -- | 1 |
| Styrene | ND | | ug/kg | 3.3 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 17 | -- | 1 |
| Acetone | 190 | | ug/kg | 60 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 17 | -- | 1 |
| 2-Butanone | 58 | | ug/kg | 17 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 17 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 17 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 17 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 17 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 6.7 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 8.4 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 33 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 8.4 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 6.7 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 8.4 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 1.7 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 8.4 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.7 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.7 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 8.4 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 8.4 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 8.4 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 8.4 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 8.4 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.7 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.7 | -- | 1 |
| Naphthalene | ND | | ug/kg | 8.4 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 1.7 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 8.4 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 8.4 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 8.4 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
 Client ID: RC-WC-061713-06
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:30
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|-----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 8.4 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 8.4 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 8.4 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 109 | | 70-130 |
| 4-Bromofluorobenzene | 141 | Q | 70-130 |
| Dibromofluoromethane | 110 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06 R
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 17:45
Analyst: BN
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 24 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 3.6 | -- | 1 |
| Chloroform | ND | | ug/kg | 3.6 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 2.4 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 8.3 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 2.4 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 3.6 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 2.4 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 2.4 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 12 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 2.4 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 2.4 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 2.4 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 2.4 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 2.4 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 12 | -- | 1 |
| Bromoform | ND | | ug/kg | 9.5 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 2.4 | -- | 1 |
| Benzene | ND | | ug/kg | 2.4 | -- | 1 |
| Toluene | ND | | ug/kg | 3.6 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 2.4 | -- | 1 |
| Chloromethane | ND | | ug/kg | 12 | -- | 1 |
| Bromomethane | ND | | ug/kg | 4.7 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 4.7 | -- | 1 |
| Chloroethane | ND | | ug/kg | 4.7 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 2.4 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 3.6 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 2.4 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 12 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 12 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 12 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06 R

Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 4.7 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 4.7 | -- | 1 |
| o-Xylene | ND | | ug/kg | 4.7 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 4.7 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 2.4 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 24 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 24 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 24 | -- | 1 |
| Styrene | ND | | ug/kg | 4.7 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 24 | -- | 1 |
| Acetone | 300 | | ug/kg | 85 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 24 | -- | 1 |
| 2-Butanone | 87 | | ug/kg | 24 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 24 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 24 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 24 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 24 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 9.5 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 12 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 47 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 12 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 9.5 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 12 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 2.4 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 12 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 2.4 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 2.4 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 12 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 12 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 12 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 12 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 12 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 2.4 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 2.4 | -- | 1 |
| Naphthalene | ND | | ug/kg | 12 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 2.4 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 12 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 12 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 12 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06 R

Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 12 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 12 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 12 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 94 | | 70-130 |
| Toluene-d8 | 101 | | 70-130 |
| 4-Bromofluorobenzene | 113 | | 70-130 |
| Dibromofluoromethane | 108 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 14:58
Analyst: BN
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 96 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 14 | -- | 1 |
| Chloroform | ND | | ug/kg | 14 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 9.6 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 34 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 9.6 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 14 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 9.6 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 9.6 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 48 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 9.6 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 9.6 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 9.6 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 9.6 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 9.6 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 48 | -- | 1 |
| Bromoform | ND | | ug/kg | 38 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 9.6 | -- | 1 |
| Benzene | ND | | ug/kg | 9.6 | -- | 1 |
| Toluene | ND | | ug/kg | 14 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 9.6 | -- | 1 |
| Chloromethane | ND | | ug/kg | 48 | -- | 1 |
| Bromomethane | ND | | ug/kg | 19 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 19 | -- | 1 |
| Chloroethane | ND | | ug/kg | 19 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 9.6 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 14 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 9.6 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 48 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 48 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 48 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
 Client ID: RC-WC-061713-07
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:45
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 19 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 19 | -- | 1 |
| o-Xylene | ND | | ug/kg | 19 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 19 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 9.6 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 96 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 96 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 96 | -- | 1 |
| Styrene | ND | | ug/kg | 19 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 96 | -- | 1 |
| Acetone | 840 | | ug/kg | 340 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 96 | -- | 1 |
| 2-Butanone | 220 | | ug/kg | 96 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 96 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 96 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 96 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 96 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 38 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 48 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 190 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 48 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 38 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 48 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 9.6 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 48 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 9.6 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 9.6 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 48 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 48 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 48 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 48 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 48 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 9.6 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 9.6 | -- | 1 |
| Naphthalene | ND | | ug/kg | 48 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 9.6 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 48 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 48 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 48 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
 Client ID: RC-WC-061713-07
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:45
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 48 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 48 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 48 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 97 | | 70-130 |
| Toluene-d8 | 102 | | 70-130 |
| 4-Bromofluorobenzene | 123 | | 70-130 |
| Dibromofluoromethane | 109 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07 R
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 18:13
Analyst: BN
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 83 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 12 | -- | 1 |
| Chloroform | ND | | ug/kg | 12 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 8.3 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 29 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 8.3 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 12 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 8.3 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 8.3 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 42 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 8.3 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 8.3 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 8.3 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 8.3 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 8.3 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 42 | -- | 1 |
| Bromoform | ND | | ug/kg | 33 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 8.3 | -- | 1 |
| Benzene | ND | | ug/kg | 8.3 | -- | 1 |
| Toluene | ND | | ug/kg | 12 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 8.3 | -- | 1 |
| Chloromethane | ND | | ug/kg | 42 | -- | 1 |
| Bromomethane | ND | | ug/kg | 17 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 17 | -- | 1 |
| Chloroethane | ND | | ug/kg | 17 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 8.3 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 12 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 8.3 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 42 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 42 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 42 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07 R

Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 17 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 17 | -- | 1 |
| o-Xylene | ND | | ug/kg | 17 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 17 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 8.3 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 83 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 83 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 83 | -- | 1 |
| Styrene | ND | | ug/kg | 17 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 83 | -- | 1 |
| Acetone | 1000 | | ug/kg | 300 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 83 | -- | 1 |
| 2-Butanone | 270 | | ug/kg | 83 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 83 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 83 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 83 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 83 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 33 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 42 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 170 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 42 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 33 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 42 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 8.3 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 42 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 8.3 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 8.3 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 42 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 42 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 42 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 42 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 42 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 8.3 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 8.3 | -- | 1 |
| Naphthalene | ND | | ug/kg | 42 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 8.3 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 42 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 42 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 42 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07 R

Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 42 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 42 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 42 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 106 | | 70-130 |
| 4-Bromofluorobenzene | 121 | | 70-130 |
| Dibromofluoromethane | 109 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 15:26
Analyst: BN
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 50 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 7.6 | -- | 1 |
| Chloroform | ND | | ug/kg | 7.6 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 5.0 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 18 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 5.0 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 7.6 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 5.0 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 5.0 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 25 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 5.0 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 5.0 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 5.0 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 5.0 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 5.0 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 25 | -- | 1 |
| Bromoform | ND | | ug/kg | 20 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 5.0 | -- | 1 |
| Benzene | ND | | ug/kg | 5.0 | -- | 1 |
| Toluene | ND | | ug/kg | 7.6 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 5.0 | -- | 1 |
| Chloromethane | ND | | ug/kg | 25 | -- | 1 |
| Bromomethane | ND | | ug/kg | 10 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 10 | -- | 1 |
| Chloroethane | ND | | ug/kg | 10 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 5.0 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 7.6 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 5.0 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 25 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 25 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 25 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
 Client ID: RC-WC-061713-08
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 14:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 10 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 10 | -- | 1 |
| o-Xylene | ND | | ug/kg | 10 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 10 | -- | 1 |
| cis-1,2-Dichloroethene | 5.1 | | ug/kg | 5.0 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 50 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 50 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 50 | -- | 1 |
| Styrene | ND | | ug/kg | 10 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 50 | -- | 1 |
| Acetone | 490 | | ug/kg | 180 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 50 | -- | 1 |
| 2-Butanone | 150 | | ug/kg | 50 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 50 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 50 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 50 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 50 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 20 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 25 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 100 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 25 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 20 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 25 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 5.0 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 25 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 5.0 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 5.0 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 25 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 25 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 25 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 25 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 25 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 5.0 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 5.0 | -- | 1 |
| Naphthalene | ND | | ug/kg | 25 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 5.0 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 25 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 25 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 25 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
 Client ID: RC-WC-061713-08
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 14:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 25 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 25 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 25 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 91 | | 70-130 |
| Toluene-d8 | 110 | | 70-130 |
| 4-Bromofluorobenzene | 131 | Q | 70-130 |
| Dibromofluoromethane | 109 | | 70-130 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08 R
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 18:40
Analyst: BN
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 58 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 8.7 | -- | 1 |
| Chloroform | ND | | ug/kg | 8.7 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 5.8 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 20 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 5.8 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 8.7 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 5.8 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 5.8 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 29 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 5.8 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 5.8 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 5.8 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 29 | -- | 1 |
| Bromoform | ND | | ug/kg | 23 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| Benzene | ND | | ug/kg | 5.8 | -- | 1 |
| Toluene | ND | | ug/kg | 8.7 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| Chloromethane | ND | | ug/kg | 29 | -- | 1 |
| Bromomethane | ND | | ug/kg | 12 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 12 | -- | 1 |
| Chloroethane | ND | | ug/kg | 12 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 5.8 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 8.7 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 5.8 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 29 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08 R

Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 12 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 12 | -- | 1 |
| o-Xylene | ND | | ug/kg | 12 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 12 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 5.8 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 58 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 58 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 58 | -- | 1 |
| Styrene | ND | | ug/kg | 12 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 58 | -- | 1 |
| Acetone | 480 | | ug/kg | 210 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 58 | -- | 1 |
| 2-Butanone | 140 | | ug/kg | 58 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 58 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 58 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 58 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 58 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 23 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 29 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 120 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 29 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 23 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 29 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 5.8 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 29 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 29 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 29 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 29 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 29 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 29 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 5.8 | -- | 1 |
| Naphthalene | ND | | ug/kg | 29 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 5.8 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 29 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 29 | -- | 1 |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08 R

Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Volatile Organics by GC/MS-5035 - Westborough Lab

| | | | | | | |
|-----------------------------|----|--|-------|----|----|---|
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 29 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 29 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 29 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 89 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 116 | | 70-130 |
| Dibromofluoromethane | 106 | | 70-130 |

Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/18/13 10:20
 Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|-----|-----|
| Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3 | | | | | |
| Methylene chloride | ND | | ug/kg | 10 | -- |
| 1,1-Dichloroethane | ND | | ug/kg | 1.5 | -- |
| Chloroform | ND | | ug/kg | 1.5 | -- |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | -- |
| 1,2-Dichloropropane | ND | | ug/kg | 3.5 | -- |
| Dibromochloromethane | ND | | ug/kg | 1.0 | -- |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.5 | -- |
| 2-Chloroethylvinyl ether | ND | | ug/kg | 20 | -- |
| Tetrachloroethene | ND | | ug/kg | 1.0 | -- |
| Chlorobenzene | ND | | ug/kg | 1.0 | -- |
| Trichlorofluoromethane | ND | | ug/kg | 5.0 | -- |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | -- |
| 1,1,1-Trichloroethane | ND | | ug/kg | 1.0 | -- |
| Bromodichloromethane | ND | | ug/kg | 1.0 | -- |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | -- |
| cis-1,3-Dichloropropene | ND | | ug/kg | 1.0 | -- |
| 1,1-Dichloropropene | ND | | ug/kg | 5.0 | -- |
| Bromoform | ND | | ug/kg | 4.0 | -- |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 1.0 | -- |
| Benzene | ND | | ug/kg | 1.0 | -- |
| Toluene | ND | | ug/kg | 1.5 | -- |
| Ethylbenzene | ND | | ug/kg | 1.0 | -- |
| Chloromethane | ND | | ug/kg | 5.0 | -- |
| Bromomethane | ND | | ug/kg | 2.0 | -- |
| Vinyl chloride | ND | | ug/kg | 2.0 | -- |
| Chloroethane | ND | | ug/kg | 2.0 | -- |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | -- |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | -- |
| Trichloroethene | ND | | ug/kg | 1.0 | -- |
| 1,2-Dichlorobenzene | ND | | ug/kg | 5.0 | -- |
| 1,3-Dichlorobenzene | ND | | ug/kg | 5.0 | -- |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/18/13 10:20
 Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|-----|-----|
| Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3 | | | | | |
| 1,4-Dichlorobenzene | ND | | ug/kg | 5.0 | -- |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | -- |
| p/m-Xylene | ND | | ug/kg | 2.0 | -- |
| o-Xylene | ND | | ug/kg | 2.0 | -- |
| Xylenes, Total | ND | | ug/kg | 2.0 | -- |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | -- |
| Dibromomethane | ND | | ug/kg | 10 | -- |
| 1,4-Dichlorobutane | ND | | ug/kg | 10 | -- |
| 1,2,3-Trichloropropane | ND | | ug/kg | 10 | -- |
| Styrene | ND | | ug/kg | 2.0 | -- |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | -- |
| Acetone | ND | | ug/kg | 36 | -- |
| Carbon disulfide | ND | | ug/kg | 10 | -- |
| 2-Butanone | ND | | ug/kg | 10 | -- |
| Vinyl acetate | ND | | ug/kg | 10 | -- |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | -- |
| 2-Hexanone | ND | | ug/kg | 10 | -- |
| Ethyl methacrylate | ND | | ug/kg | 10 | -- |
| Acrolein | ND | | ug/kg | 25 | -- |
| Acrylonitrile | ND | | ug/kg | 4.0 | -- |
| Bromochloromethane | ND | | ug/kg | 5.0 | -- |
| Tetrahydrofuran | ND | | ug/kg | 20 | -- |
| 2,2-Dichloropropane | ND | | ug/kg | 5.0 | -- |
| 1,2-Dibromoethane | ND | | ug/kg | 4.0 | -- |
| 1,3-Dichloropropane | ND | | ug/kg | 5.0 | -- |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 1.0 | -- |
| Bromobenzene | ND | | ug/kg | 5.0 | -- |
| n-Butylbenzene | ND | | ug/kg | 1.0 | -- |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | -- |
| tert-Butylbenzene | ND | | ug/kg | 5.0 | -- |
| 1,3,5-Trichlorobenzene | ND | | ug/kg | 4.0 | -- |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/18/13 10:20
 Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|-----|-----|
| Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3 | | | | | |
| o-Chlorotoluene | ND | | ug/kg | 5.0 | -- |
| p-Chlorotoluene | ND | | ug/kg | 5.0 | -- |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 5.0 | -- |
| Hexachlorobutadiene | ND | | ug/kg | 5.0 | -- |
| Isopropylbenzene | ND | | ug/kg | 1.0 | -- |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | -- |
| Naphthalene | ND | | ug/kg | 5.0 | -- |
| n-Propylbenzene | ND | | ug/kg | 1.0 | -- |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 5.0 | -- |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 5.0 | -- |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 5.0 | -- |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 5.0 | -- |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.0 | -- |
| Ethyl ether | ND | | ug/kg | 5.0 | -- |
| Methyl Acetate | ND | | ug/kg | 20 | -- |
| Ethyl Acetate | ND | | ug/kg | 20 | -- |
| Isopropyl Ether | ND | | ug/kg | 4.0 | -- |
| Cyclohexane | ND | | ug/kg | 20 | -- |
| Tert-Butyl Alcohol | ND | | ug/kg | 100 | -- |
| Ethyl-Tert-Butyl-Ether | ND | | ug/kg | 4.0 | -- |
| Tertiary-Amyl Methyl Ether | ND | | ug/kg | 4.0 | -- |
| 1,4-Dioxane | ND | | ug/kg | 100 | -- |
| Methyl cyclohexane | ND | | ug/kg | 4.0 | -- |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | | ug/kg | 20 | -- |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**Method Blank Analysis**
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 10:20
Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|----|-----|
| Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|------------------------|
| 1,2-Dichloroethane-d4 | 95 | | 70-130 |
| Toluene-d8 | 98 | | 70-130 |
| 4-Bromofluorobenzene | 109 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2 | | | | | | | | |
| Methylene chloride | 107 | | 97 | | 70-130 | 10 | | 30 |
| 1,1-Dichloroethane | 116 | | 102 | | 70-130 | 13 | | 30 |
| Chloroform | 115 | | 102 | | 70-130 | 12 | | 30 |
| Carbon tetrachloride | 119 | | 99 | | 70-130 | 18 | | 30 |
| 1,2-Dichloropropane | 112 | | 101 | | 70-130 | 10 | | 30 |
| Dibromochloromethane | 99 | | 93 | | 70-130 | 6 | | 30 |
| 1,1,2-Trichloroethane | 95 | | 89 | | 70-130 | 7 | | 30 |
| 2-Chloroethylvinyl ether | 112 | | 101 | | 70-130 | 10 | | 30 |
| Tetrachloroethene | 104 | | 88 | | 70-130 | 17 | | 30 |
| Chlorobenzene | 103 | | 92 | | 70-130 | 11 | | 30 |
| Trichlorofluoromethane | 96 | | 79 | | 70-139 | 19 | | 30 |
| 1,2-Dichloroethane | 112 | | 105 | | 70-130 | 6 | | 30 |
| 1,1,1-Trichloroethane | 117 | | 100 | | 70-130 | 16 | | 30 |
| Bromodichloromethane | 114 | | 105 | | 70-130 | 8 | | 30 |
| trans-1,3-Dichloropropene | 102 | | 95 | | 70-130 | 7 | | 30 |
| cis-1,3-Dichloropropene | 109 | | 100 | | 70-130 | 9 | | 30 |
| 1,1-Dichloropropene | 117 | | 98 | | 70-130 | 18 | | 30 |
| Bromoform | 83 | | 80 | | 70-130 | 4 | | 30 |
| 1,1,2,2-Tetrachloroethane | 83 | | 80 | | 70-130 | 4 | | 30 |
| Benzene | 112 | | 99 | | 70-130 | 12 | | 30 |
| Toluene | 99 | | 87 | | 70-130 | 13 | | 30 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2 | | | | | | | | |
| Ethylbenzene | 103 | | 90 | | 70-130 | 13 | | 30 |
| Chloromethane | 119 | | 100 | | 52-130 | 17 | | 30 |
| Bromomethane | 95 | | 82 | | 57-147 | 15 | | 30 |
| Vinyl chloride | 107 | | 89 | | 67-130 | 18 | | 30 |
| Chloroethane | 86 | | 73 | | 50-151 | 16 | | 30 |
| 1,1-Dichloroethene | 119 | | 99 | | 65-135 | 18 | | 30 |
| trans-1,2-Dichloroethene | 116 | | 100 | | 70-130 | 15 | | 30 |
| Trichloroethene | 111 | | 96 | | 70-130 | 14 | | 30 |
| 1,2-Dichlorobenzene | 98 | | 90 | | 70-130 | 9 | | 30 |
| 1,3-Dichlorobenzene | 99 | | 89 | | 70-130 | 11 | | 30 |
| 1,4-Dichlorobenzene | 99 | | 90 | | 70-130 | 10 | | 30 |
| Methyl tert butyl ether | 102 | | 97 | | 66-130 | 5 | | 30 |
| p/m-Xylene | 105 | | 92 | | 70-130 | 13 | | 30 |
| o-Xylene | 102 | | 90 | | 70-130 | 13 | | 30 |
| cis-1,2-Dichloroethene | 111 | | 100 | | 70-130 | 10 | | 30 |
| Dibromomethane | 108 | | 102 | | 70-130 | 6 | | 30 |
| 1,4-Dichlorobutane | 84 | | 81 | | 70-130 | 4 | | 30 |
| 1,2,3-Trichloropropane | 80 | | 78 | | 68-130 | 3 | | 30 |
| Styrene | 100 | | 90 | | 70-130 | 11 | | 30 |
| Dichlorodifluoromethane | 145 | | 119 | | 30-146 | 20 | | 30 |
| Acetone | 101 | | 98 | | 54-140 | 3 | | 30 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2 | | | | | | | | |
| Carbon disulfide | 114 | | 96 | | 59-130 | 17 | | 30 |
| 2-Butanone | 94 | | 92 | | 70-130 | 2 | | 30 |
| Vinyl acetate | 94 | | 90 | | 70-130 | 4 | | 30 |
| 4-Methyl-2-pentanone | 81 | | 80 | | 70-130 | 1 | | 30 |
| 2-Hexanone | 77 | | 75 | | 70-130 | 3 | | 30 |
| Ethyl methacrylate | 90 | | 85 | | 70-130 | 6 | | 30 |
| Acrolein | 85 | | 86 | | | 1 | | 30 |
| Acrylonitrile | 92 | | 91 | | 70-130 | 1 | | 30 |
| Bromochloromethane | 112 | | 105 | | 70-130 | 6 | | 30 |
| Tetrahydrofuran | 89 | | 88 | | 66-130 | 1 | | 30 |
| 2,2-Dichloropropane | 118 | | 101 | | 70-130 | 16 | | 30 |
| 1,2-Dibromoethane | 97 | | 92 | | 70-130 | 5 | | 30 |
| 1,3-Dichloropropane | 97 | | 92 | | 69-130 | 5 | | 30 |
| 1,1,1,2-Tetrachloroethane | 102 | | 92 | | 70-130 | 10 | | 30 |
| Bromobenzene | 96 | | 88 | | 70-130 | 9 | | 30 |
| n-Butylbenzene | 104 | | 88 | | 70-130 | 17 | | 30 |
| sec-Butylbenzene | 103 | | 87 | | 70-130 | 17 | | 30 |
| tert-Butylbenzene | 104 | | 89 | | 70-130 | 16 | | 30 |
| 1,3,5-Trichlorobenzene | 98 | | 87 | | 70-139 | 12 | | 30 |
| o-Chlorotoluene | 108 | | 95 | | 70-130 | 13 | | 30 |
| p-Chlorotoluene | 102 | | 90 | | 70-130 | 13 | | 30 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 69 | | 67 | Q | 68-130 | 3 | | 30 |
| Hexachlorobutadiene | 110 | | 94 | | 67-130 | 16 | | 30 |
| Isopropylbenzene | 99 | | 85 | | 70-130 | 15 | | 30 |
| p-Isopropyltoluene | 103 | | 89 | | 70-130 | 15 | | 30 |
| Naphthalene | 80 | | 77 | | 70-130 | 4 | | 30 |
| n-Propylbenzene | 99 | | 85 | | 70-130 | 15 | | 30 |
| 1,2,3-Trichlorobenzene | 90 | | 84 | | 70-130 | 7 | | 30 |
| 1,2,4-Trichlorobenzene | 96 | | 89 | | 70-130 | 8 | | 30 |
| 1,3,5-Trimethylbenzene | 103 | | 90 | | 70-130 | 13 | | 30 |
| 1,2,4-Trimethylbenzene | 104 | | 92 | | 70-130 | 12 | | 30 |
| trans-1,4-Dichloro-2-butene | 81 | | 76 | | 70-130 | 6 | | 30 |
| Ethyl ether | 88 | | 84 | | 67-130 | 5 | | 30 |
| Methyl Acetate | 97 | | 96 | | 65-130 | 1 | | 30 |
| Ethyl Acetate | 90 | | 88 | | 70-130 | 2 | | 30 |
| Cyclohexane | 117 | | 96 | | 70-130 | 20 | | 30 |
| Tert-Butyl Alcohol | 76 | | 77 | | 70-130 | 1 | | 30 |
| Ethyl-Tert-Butyl-Ether | 109 | | 102 | | 70-130 | 7 | | 30 |
| Tertiary-Amyl Methyl Ether | 104 | | 99 | | 70-130 | 5 | | 30 |
| 1,4-Dioxane | 96 | | 93 | | 65-136 | 3 | | 30 |
| Methyl cyclohexane | 117 | | 96 | | 70-130 | 20 | | 30 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 118 | | 97 | | 70-130 | 20 | | 30 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2 | | | | | | | | |
| 1,4-Diethylbenzene | 104 | | 88 | | 70-130 | 17 | | 30 |
| 4-Ethyltoluene | 101 | | 87 | | 70-130 | 15 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 103 | | 90 | | 70-130 | 13 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 97 | | 98 | | 70-130 |
| Toluene-d8 | 98 | | 97 | | 70-130 |
| 4-Bromofluorobenzene | 103 | | 104 | | 70-130 |
| Dibromofluoromethane | 104 | | 105 | | 70-130 |

SEMIVOLATILES

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 00:09
Analyst: JB
Percent Solids: 21%

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 630 | -- | 1 |
| Benzidine | ND | | ug/kg | 2700 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 790 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 470 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 790 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 790 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 790 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 790 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 790 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 790 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 790 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 790 | -- | 1 |
| Azobenzene | ND | | ug/kg | 790 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 470 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 790 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 790 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 940 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 790 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 790 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 2200 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 630 | -- | 1 |
| Isophorone | ND | | ug/kg | 790 | -- | 1 |
| Naphthalene | ND | | ug/kg | 790 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 790 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 630 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 790 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 790 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 790 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 790 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 790 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 790 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01

Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 790 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 470 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 630 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 470 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 470 | -- | 1 |
| Chrysene | ND | | ug/kg | 470 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 630 | -- | 1 |
| Anthracene | ND | | ug/kg | 470 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 630 | -- | 1 |
| Fluorene | ND | | ug/kg | 790 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 470 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 470 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 630 | -- | 1 |
| Pyrene | ND | | ug/kg | 470 | -- | 1 |
| Biphenyl | ND | | ug/kg | 1700 | -- | 1 |
| Aniline | ND | | ug/kg | 940 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 790 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 790 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 790 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 790 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 790 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 790 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 940 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 1600 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 470 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 790 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 790 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 790 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 790 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 1700 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 1100 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 3800 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 2000 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 630 | -- | 1 |
| Phenol | ND | | ug/kg | 790 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 790 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 1100 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 790 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 2500 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01
 Client ID: RC-WC-061713-01
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 11:20
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 790 | -- | 1 |
| Carbazole | ND | | ug/kg | 790 | -- | 1 |
| Pyridine | ND | | ug/kg | 3100 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 58 | | 25-120 |
| Phenol-d6 | 54 | | 10-120 |
| Nitrobenzene-d5 | 51 | | 23-120 |
| 2-Fluorobiphenyl | 55 | | 30-120 |
| 2,4,6-Tribromophenol | 62 | | 0-136 |
| 4-Terphenyl-d14 | 64 | | 18-120 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 00:37
Analyst: JB
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 1100 | -- | 1 |
| Benzidine | ND | | ug/kg | 4800 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1400 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 850 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 1400 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 1400 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1400 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1400 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1400 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 1400 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 1400 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 1400 | -- | 1 |
| Azobenzene | ND | | ug/kg | 1400 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 850 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 1400 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 1400 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 1700 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 1400 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 1400 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 4000 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 1100 | -- | 1 |
| Isophorone | ND | | ug/kg | 1400 | -- | 1 |
| Naphthalene | ND | | ug/kg | 1400 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 1400 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 1100 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 1400 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 1400 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 1400 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 1400 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 1400 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 1400 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
 Client ID: RC-WC-061713-02
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 11:40
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 1400 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 850 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 1100 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 850 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 850 | -- | 1 |
| Chrysene | ND | | ug/kg | 850 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 1100 | -- | 1 |
| Anthracene | ND | | ug/kg | 850 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 1100 | -- | 1 |
| Fluorene | ND | | ug/kg | 1400 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 850 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 850 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 1100 | -- | 1 |
| Pyrene | ND | | ug/kg | 850 | -- | 1 |
| Biphenyl | ND | | ug/kg | 3100 | -- | 1 |
| Aniline | ND | | ug/kg | 1700 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 1400 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 1400 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 1400 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 1400 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 1400 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 1400 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 1700 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 2800 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 850 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 1400 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 1400 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 1400 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 1400 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 3100 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 2000 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 6800 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 3700 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 1100 | -- | 1 |
| Phenol | ND | | ug/kg | 1400 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 1400 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 2000 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 1400 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 4600 | -- | 1 |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
 Client ID: RC-WC-061713-02
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 11:40
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 1400 | -- | 1 |
| Carbazole | ND | | ug/kg | 1400 | -- | 1 |
| Pyridine | ND | | ug/kg | 5700 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 59 | | 25-120 |
| Phenol-d6 | 54 | | 10-120 |
| Nitrobenzene-d5 | 44 | | 23-120 |
| 2-Fluorobiphenyl | 52 | | 30-120 |
| 2,4,6-Tribromophenol | 58 | | 0-136 |
| 4-Terphenyl-d14 | 45 | | 18-120 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 01:05
Analyst: JB
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 620 | -- | 1 |
| Benzidine | ND | | ug/kg | 2600 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 770 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 460 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 770 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 770 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 770 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 770 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 770 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 770 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 770 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 770 | -- | 1 |
| Azobenzene | ND | | ug/kg | 770 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 460 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 770 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 770 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 920 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 770 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 770 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 2200 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 620 | -- | 1 |
| Isophorone | ND | | ug/kg | 770 | -- | 1 |
| Naphthalene | ND | | ug/kg | 770 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 770 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 620 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 770 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 770 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 770 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 770 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 770 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 770 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
 Client ID: RC-WC-061713-03
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 770 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 460 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 620 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 460 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 460 | -- | 1 |
| Chrysene | ND | | ug/kg | 460 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 620 | -- | 1 |
| Anthracene | ND | | ug/kg | 460 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 620 | -- | 1 |
| Fluorene | ND | | ug/kg | 770 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 460 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 460 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 620 | -- | 1 |
| Pyrene | ND | | ug/kg | 460 | -- | 1 |
| Biphenyl | ND | | ug/kg | 1700 | -- | 1 |
| Aniline | ND | | ug/kg | 920 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 770 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 770 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 770 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 770 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 770 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 770 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 920 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 1500 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 460 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 770 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 770 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 770 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 770 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 1700 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 1100 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 3700 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 2000 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 620 | -- | 1 |
| Phenol | ND | | ug/kg | 770 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 770 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 1100 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 770 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 2500 | -- | 1 |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
 Client ID: RC-WC-061713-03
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 770 | -- | 1 |
| Carbazole | ND | | ug/kg | 770 | -- | 1 |
| Pyridine | ND | | ug/kg | 3100 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 61 | | 25-120 |
| Phenol-d6 | 58 | | 10-120 |
| Nitrobenzene-d5 | 54 | | 23-120 |
| 2-Fluorobiphenyl | 57 | | 30-120 |
| 2,4,6-Tribromophenol | 56 | | 0-136 |
| 4-Terphenyl-d14 | 57 | | 18-120 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 01:33
Analyst: JB
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 2100 | -- | 1 |
| Benzidine | ND | | ug/kg | 8800 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2600 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 1600 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 2600 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 2600 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2600 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2600 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2600 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 2600 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 2600 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 2600 | -- | 1 |
| Azobenzene | ND | | ug/kg | 2600 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 1600 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 2600 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 2600 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 3100 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 2600 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 2600 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 7200 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 2100 | -- | 1 |
| Isophorone | ND | | ug/kg | 2600 | -- | 1 |
| Naphthalene | ND | | ug/kg | 2600 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 2600 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 2100 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 2600 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 2600 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 2600 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 2600 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 2600 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 2600 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
 Client ID: RC-WC-061713-04
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:35
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 2600 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 1600 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 2100 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 1600 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 1600 | -- | 1 |
| Chrysene | ND | | ug/kg | 1600 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 2100 | -- | 1 |
| Anthracene | ND | | ug/kg | 1600 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 2100 | -- | 1 |
| Fluorene | ND | | ug/kg | 2600 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 1600 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 1600 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 2100 | -- | 1 |
| Pyrene | ND | | ug/kg | 1600 | -- | 1 |
| Biphenyl | ND | | ug/kg | 5700 | -- | 1 |
| Aniline | ND | | ug/kg | 3100 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 2600 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 2600 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 2600 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 2600 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 2600 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 2600 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 3100 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 5200 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 1600 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 2600 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 2600 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 2600 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 2600 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 5700 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 3600 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 12000 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 6700 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 2100 | -- | 1 |
| Phenol | ND | | ug/kg | 2600 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 2600 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 3600 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 2600 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 8300 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
 Client ID: RC-WC-061713-04
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:35
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|-------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 2600 | -- | 1 |
| Carbazole | ND | | ug/kg | 2600 | -- | 1 |
| Pyridine | ND | | ug/kg | 10000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 55 | | 25-120 |
| Phenol-d6 | 50 | | 10-120 |
| Nitrobenzene-d5 | 44 | | 23-120 |
| 2-Fluorobiphenyl | 38 | | 30-120 |
| 2,4,6-Tribromophenol | 44 | | 0-136 |
| 4-Terphenyl-d14 | 33 | | 18-120 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 02:01
Analyst: JB
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 1500 | -- | 1 |
| Benzidine | ND | | ug/kg | 6200 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 1100 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 1800 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 1800 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 1800 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 1800 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 1800 | -- | 1 |
| Azobenzene | ND | | ug/kg | 1800 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 1100 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 1800 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 1800 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 2200 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 1800 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 1800 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 5100 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 1500 | -- | 1 |
| Isophorone | ND | | ug/kg | 1800 | -- | 1 |
| Naphthalene | ND | | ug/kg | 1800 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 1800 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 1500 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 1800 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 1800 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 1800 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 1800 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 1800 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 1800 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
 Client ID: RC-WC-061713-05
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 1800 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 1100 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 1500 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 1100 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 1100 | -- | 1 |
| Chrysene | ND | | ug/kg | 1100 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 1500 | -- | 1 |
| Anthracene | ND | | ug/kg | 1100 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 1500 | -- | 1 |
| Fluorene | ND | | ug/kg | 1800 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 1100 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 1100 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 1500 | -- | 1 |
| Pyrene | ND | | ug/kg | 1100 | -- | 1 |
| Biphenyl | ND | | ug/kg | 4000 | -- | 1 |
| Aniline | ND | | ug/kg | 2200 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 1800 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 1800 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 1800 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 1800 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 1800 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 1800 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 2200 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 3700 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 1100 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 1800 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 1800 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 1800 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 1800 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 4000 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 2600 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 8800 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 4800 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 1500 | -- | 1 |
| Phenol | ND | | ug/kg | 1800 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 1800 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 2600 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 1800 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 5900 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
 Client ID: RC-WC-061713-05
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 1800 | -- | 1 |
| Carbazole | ND | | ug/kg | 1800 | -- | 1 |
| Pyridine | ND | | ug/kg | 7400 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 56 | | 25-120 |
| Phenol-d6 | 51 | | 10-120 |
| Nitrobenzene-d5 | 48 | | 23-120 |
| 2-Fluorobiphenyl | 43 | | 30-120 |
| 2,4,6-Tribromophenol | 56 | | 0-136 |
| 4-Terphenyl-d14 | 46 | | 18-120 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 02:29
Analyst: JB
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 490 | -- | 1 |
| Benzidine | ND | | ug/kg | 2100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 370 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 610 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 610 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 610 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 610 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 610 | -- | 1 |
| Azobenzene | ND | | ug/kg | 610 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 370 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 610 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 610 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 730 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 610 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 610 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 1700 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 490 | -- | 1 |
| Isophorone | ND | | ug/kg | 610 | -- | 1 |
| Naphthalene | ND | | ug/kg | 610 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 610 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 490 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 610 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 610 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 610 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 610 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 610 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 610 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
 Client ID: RC-WC-061713-06
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:30
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 610 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 370 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 490 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 370 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 370 | -- | 1 |
| Chrysene | ND | | ug/kg | 370 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 490 | -- | 1 |
| Anthracene | ND | | ug/kg | 370 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 490 | -- | 1 |
| Fluorene | ND | | ug/kg | 610 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 370 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 370 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 490 | -- | 1 |
| Pyrene | ND | | ug/kg | 370 | -- | 1 |
| Biphenyl | ND | | ug/kg | 1300 | -- | 1 |
| Aniline | ND | | ug/kg | 730 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 610 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 610 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 610 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 610 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 610 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 610 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 730 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 1200 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 370 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 610 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 610 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 610 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 610 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 1300 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 850 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 2900 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 1600 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 490 | -- | 1 |
| Phenol | ND | | ug/kg | 610 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 610 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 850 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 610 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 2000 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
 Client ID: RC-WC-061713-06
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:30
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 610 | -- | 1 |
| Carbazole | ND | | ug/kg | 610 | -- | 1 |
| Pyridine | ND | | ug/kg | 2400 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 71 | | 25-120 |
| Phenol-d6 | 66 | | 10-120 |
| Nitrobenzene-d5 | 62 | | 23-120 |
| 2-Fluorobiphenyl | 64 | | 30-120 |
| 2,4,6-Tribromophenol | 71 | | 0-136 |
| 4-Terphenyl-d14 | 62 | | 18-120 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 02:57
Analyst: JB
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 1500 | -- | 1 |
| Benzidine | ND | | ug/kg | 6200 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 1100 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 1800 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 1800 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1800 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 1800 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 1800 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 1800 | -- | 1 |
| Azobenzene | ND | | ug/kg | 1800 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 1100 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 1800 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 1800 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 2200 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 1800 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 1800 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 5100 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 1500 | -- | 1 |
| Isophorone | ND | | ug/kg | 1800 | -- | 1 |
| Naphthalene | ND | | ug/kg | 1800 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 1800 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 1500 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 1800 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 1800 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 1800 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 1800 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 1800 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 1800 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
 Client ID: RC-WC-061713-07
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:45
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 1800 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 1100 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 1500 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 1100 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 1100 | -- | 1 |
| Chrysene | ND | | ug/kg | 1100 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 1500 | -- | 1 |
| Anthracene | ND | | ug/kg | 1100 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 1500 | -- | 1 |
| Fluorene | ND | | ug/kg | 1800 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 1100 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 1100 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 1500 | -- | 1 |
| Pyrene | ND | | ug/kg | 1100 | -- | 1 |
| Biphenyl | ND | | ug/kg | 4000 | -- | 1 |
| Aniline | ND | | ug/kg | 2200 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 1800 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 1800 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 1800 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 1800 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 1800 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 1800 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 2200 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 3600 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 1100 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 1800 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 1800 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 1800 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 1800 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 4000 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 2600 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 8800 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 4800 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 1500 | -- | 1 |
| Phenol | ND | | ug/kg | 1800 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 1800 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 2600 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 1800 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 5800 | -- | 1 |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
 Client ID: RC-WC-061713-07
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:45
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 1800 | -- | 1 |
| Carbazole | ND | | ug/kg | 1800 | -- | 1 |
| Pyridine | ND | | ug/kg | 7300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 65 | | 25-120 |
| Phenol-d6 | 62 | | 10-120 |
| Nitrobenzene-d5 | 60 | | 23-120 |
| 2-Fluorobiphenyl | 62 | | 30-120 |
| 2,4,6-Tribromophenol | 70 | | 0-136 |
| 4-Terphenyl-d14 | 73 | | 18-120 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8270D
Analytical Date: 06/22/13 03:25
Analyst: JB
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 1300 | -- | 1 |
| Benzidine | ND | | ug/kg | 5600 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1600 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 980 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 1600 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 1600 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1600 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1600 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1600 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 1600 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 1600 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 1600 | -- | 1 |
| Azobenzene | ND | | ug/kg | 1600 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 980 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 1600 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 1600 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 2000 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 1600 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 1600 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 4600 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 1300 | -- | 1 |
| Isophorone | ND | | ug/kg | 1600 | -- | 1 |
| Naphthalene | ND | | ug/kg | 1600 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 1600 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 1300 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 1600 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 1600 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 1600 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 1600 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 1600 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 1600 | -- | 1 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
 Client ID: RC-WC-061713-08
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 14:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 1600 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 980 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 1300 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 980 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 980 | -- | 1 |
| Chrysene | ND | | ug/kg | 980 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 1300 | -- | 1 |
| Anthracene | ND | | ug/kg | 980 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 1300 | -- | 1 |
| Fluorene | ND | | ug/kg | 1600 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 980 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 980 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 1300 | -- | 1 |
| Pyrene | ND | | ug/kg | 980 | -- | 1 |
| Biphenyl | ND | | ug/kg | 3600 | -- | 1 |
| Aniline | ND | | ug/kg | 2000 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 1600 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 1600 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 1600 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 1600 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 1600 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 1600 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 2000 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 3300 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 980 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 1600 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 1600 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 1600 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 1600 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 3600 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 2300 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 7900 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 4300 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 1300 | -- | 1 |
| Phenol | ND | | ug/kg | 1600 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 1600 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 2300 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 1600 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 5200 | -- | 1 |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
 Client ID: RC-WC-061713-08
 Sample Location: DEVENS, MA

Date Collected: 06/17/13 14:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS - Westborough Lab

| | | | | | | |
|----------------|----|--|-------|------|----|---|
| Benzyl Alcohol | ND | | ug/kg | 1600 | -- | 1 |
| Carbazole | ND | | ug/kg | 1600 | -- | 1 |
| Pyridine | ND | | ug/kg | 6600 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 63 | | 25-120 |
| Phenol-d6 | 56 | | 10-120 |
| Nitrobenzene-d5 | 51 | | 23-120 |
| 2-Fluorobiphenyl | 43 | | 30-120 |
| 2,4,6-Tribromophenol | 60 | | 0-136 |
| 4-Terphenyl-d14 | 37 | | 18-120 |

Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 06/18/13 18:41
 Analyst: JB

Extraction Method: EPA 3546
 Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-----|-----|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG615608-1 | | | | | |
| Acenaphthene | ND | | ug/kg | 130 | -- |
| Benzidine | ND | | ug/kg | 560 | -- |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 170 | -- |
| Hexachlorobenzene | ND | | ug/kg | 100 | -- |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | -- |
| 2-Chloronaphthalene | ND | | ug/kg | 170 | -- |
| 1,2-Dichlorobenzene | ND | | ug/kg | 170 | -- |
| 1,3-Dichlorobenzene | ND | | ug/kg | 170 | -- |
| 1,4-Dichlorobenzene | ND | | ug/kg | 170 | -- |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 170 | -- |
| 2,4-Dinitrotoluene | ND | | ug/kg | 170 | -- |
| 2,6-Dinitrotoluene | ND | | ug/kg | 170 | -- |
| Azobenzene | ND | | ug/kg | 170 | -- |
| Fluoranthene | ND | | ug/kg | 100 | -- |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 170 | -- |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 170 | -- |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 200 | -- |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 170 | -- |
| Hexachlorobutadiene | ND | | ug/kg | 170 | -- |
| Hexachlorocyclopentadiene | ND | | ug/kg | 460 | -- |
| Hexachloroethane | ND | | ug/kg | 130 | -- |
| Isophorone | ND | | ug/kg | 170 | -- |
| Naphthalene | ND | | ug/kg | 170 | -- |
| Nitrobenzene | ND | | ug/kg | 170 | -- |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 130 | -- |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 170 | -- |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 170 | -- |
| Butyl benzyl phthalate | ND | | ug/kg | 170 | -- |
| Di-n-butylphthalate | ND | | ug/kg | 170 | -- |
| Di-n-octylphthalate | ND | | ug/kg | 170 | -- |
| Diethyl phthalate | ND | | ug/kg | 170 | -- |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 06/18/13 18:41
 Analyst: JB

Extraction Method: EPA 3546
 Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-----|-----|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG615608-1 | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 170 | -- |
| Benzo(a)anthracene | ND | | ug/kg | 100 | -- |
| Benzo(a)pyrene | ND | | ug/kg | 130 | -- |
| Benzo(b)fluoranthene | ND | | ug/kg | 100 | -- |
| Benzo(k)fluoranthene | ND | | ug/kg | 100 | -- |
| Chrysene | ND | | ug/kg | 100 | -- |
| Acenaphthylene | ND | | ug/kg | 130 | -- |
| Anthracene | ND | | ug/kg | 100 | -- |
| Benzo(ghi)perylene | ND | | ug/kg | 130 | -- |
| Fluorene | ND | | ug/kg | 170 | -- |
| Phenanthrene | ND | | ug/kg | 100 | -- |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 100 | -- |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 130 | -- |
| Pyrene | ND | | ug/kg | 100 | -- |
| Biphenyl | ND | | ug/kg | 360 | -- |
| Aniline | ND | | ug/kg | 200 | -- |
| 4-Chloroaniline | ND | | ug/kg | 170 | -- |
| 1-Methylnaphthalene | ND | | ug/kg | 170 | -- |
| 2-Nitroaniline | ND | | ug/kg | 170 | -- |
| 3-Nitroaniline | ND | | ug/kg | 170 | -- |
| 4-Nitroaniline | ND | | ug/kg | 170 | -- |
| Dibenzofuran | ND | | ug/kg | 170 | -- |
| 2-Methylnaphthalene | ND | | ug/kg | 200 | -- |
| n-Nitrosodimethylamine | ND | | ug/kg | 330 | -- |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 100 | -- |
| P-Chloro-M-Cresol | ND | | ug/kg | 170 | -- |
| 2-Chlorophenol | ND | | ug/kg | 170 | -- |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | -- |
| 2,4-Dimethylphenol | ND | | ug/kg | 170 | -- |
| 2-Nitrophenol | ND | | ug/kg | 360 | -- |
| 4-Nitrophenol | ND | | ug/kg | 230 | -- |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 06/18/13 18:41
 Analyst: JB

Extraction Method: EPA 3546
 Extraction Date: 06/18/13 02:17

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-----|-----|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG615608-1 | | | | | |
| 2,4-Dinitrophenol | ND | | ug/kg | 800 | -- |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 430 | -- |
| Pentachlorophenol | ND | | ug/kg | 130 | -- |
| Phenol | ND | | ug/kg | 170 | -- |
| 2-Methylphenol | ND | | ug/kg | 170 | -- |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 230 | -- |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 170 | -- |
| Benzoic Acid | ND | | ug/kg | 530 | -- |
| Benzyl Alcohol | ND | | ug/kg | 170 | -- |
| Carbazole | ND | | ug/kg | 170 | -- |
| Pyridine | ND | | ug/kg | 660 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|----------------------|-----------|-----------|------------------------|
| 2-Fluorophenol | 61 | | 25-120 |
| Phenol-d6 | 61 | | 10-120 |
| Nitrobenzene-d5 | 57 | | 23-120 |
| 2-Fluorobiphenyl | 61 | | 30-120 |
| 2,4,6-Tribromophenol | 54 | | 0-136 |
| 4-Terphenyl-d14 | 69 | | 18-120 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3 | | | | | | | | |
| Acenaphthene | 71 | | 72 | | 31-137 | 1 | | 50 |
| Benzidine | 36 | | 34 | | 10-66 | 6 | | 50 |
| 1,2,4-Trichlorobenzene | 67 | | 67 | | 38-107 | 0 | | 50 |
| Hexachlorobenzene | 74 | | 72 | | 40-140 | 3 | | 50 |
| Bis(2-chloroethyl)ether | 62 | | 63 | | 40-140 | 2 | | 50 |
| 2-Chloronaphthalene | 76 | | 74 | | 40-140 | 3 | | 50 |
| 1,2-Dichlorobenzene | 64 | | 64 | | 40-140 | 0 | | 50 |
| 1,3-Dichlorobenzene | 64 | | 65 | | 40-140 | 2 | | 50 |
| 1,4-Dichlorobenzene | 65 | | 65 | | 28-104 | 0 | | 50 |
| 3,3'-Dichlorobenzidine | 61 | | 60 | | 40-140 | 2 | | 50 |
| 2,4-Dinitrotoluene | 84 | | 85 | | 28-89 | 1 | | 50 |
| 2,6-Dinitrotoluene | 88 | | 84 | | 40-140 | 5 | | 50 |
| Azobenzene | 78 | | 77 | | 40-140 | 1 | | 50 |
| Fluoranthene | 79 | | 79 | | 40-140 | 0 | | 50 |
| 4-Chlorophenyl phenyl ether | 76 | | 75 | | 40-140 | 1 | | 50 |
| 4-Bromophenyl phenyl ether | 76 | | 76 | | 40-140 | 0 | | 50 |
| Bis(2-chloroisopropyl)ether | 60 | | 61 | | 40-140 | 2 | | 50 |
| Bis(2-chloroethoxy)methane | 69 | | 69 | | 40-117 | 0 | | 50 |
| Hexachlorobutadiene | 69 | | 68 | | 40-140 | 1 | | 50 |
| Hexachlorocyclopentadiene | 68 | | 64 | | 40-140 | 6 | | 50 |
| Hexachloroethane | 65 | | 64 | | 40-140 | 2 | | 50 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3 | | | | | | | | |
| Isophorone | 71 | | 69 | | 40-140 | 3 | | 50 |
| Naphthalene | 68 | | 68 | | 40-140 | 0 | | 50 |
| Nitrobenzene | 69 | | 67 | | 40-140 | 3 | | 50 |
| NitrosoDiPhenylAmine(NDPA)/DPA | 79 | | 78 | | 36-157 | 1 | | 50 |
| n-Nitrosodi-n-propylamine | 71 | | 68 | | 32-121 | 4 | | 50 |
| Bis(2-Ethylhexyl)phthalate | 81 | | 80 | | 40-140 | 1 | | 50 |
| Butyl benzyl phthalate | 86 | | 86 | | 40-140 | 0 | | 50 |
| Di-n-butylphthalate | 81 | | 81 | | 40-140 | 0 | | 50 |
| Di-n-octylphthalate | 87 | | 89 | | 40-140 | 2 | | 50 |
| Diethyl phthalate | 77 | | 78 | | 40-140 | 1 | | 50 |
| Dimethyl phthalate | 76 | | 76 | | 40-140 | 0 | | 50 |
| Benzo(a)anthracene | 76 | | 77 | | 40-140 | 1 | | 50 |
| Benzo(a)pyrene | 78 | | 73 | | 40-140 | 7 | | 50 |
| Benzo(b)fluoranthene | 72 | | 74 | | 40-140 | 3 | | 50 |
| Benzo(k)fluoranthene | 79 | | 78 | | 40-140 | 1 | | 50 |
| Chrysene | 74 | | 75 | | 40-140 | 1 | | 50 |
| Acenaphthylene | 79 | | 78 | | 40-140 | 1 | | 50 |
| Anthracene | 79 | | 79 | | 40-140 | 0 | | 50 |
| Benzo(ghi)perylene | 78 | | 80 | | 40-140 | 3 | | 50 |
| Fluorene | 77 | | 76 | | 40-140 | 1 | | 50 |
| Phenanthrene | 77 | | 77 | | 40-140 | 0 | | 50 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3 | | | | | | | | |
| Dibenzo(a,h)anthracene | 81 | | 82 | | 40-140 | 1 | | 50 |
| Indeno(1,2,3-cd)Pyrene | 80 | | 81 | | 40-140 | 1 | | 50 |
| Pyrene | 78 | | 79 | | 35-142 | 1 | | 50 |
| Biphenyl | 70 | | 70 | | 54-104 | 0 | | 50 |
| Aniline | 46 | | 44 | | 40-140 | 4 | | 50 |
| 4-Chloroaniline | 50 | | 47 | | 40-140 | 6 | | 50 |
| 1-Methylnaphthalene | 75 | | 74 | | 26-130 | 1 | | 50 |
| 2-Nitroaniline | 82 | | 82 | | 47-134 | 0 | | 50 |
| 3-Nitroaniline | 51 | | 51 | | 26-129 | 0 | | 50 |
| 4-Nitroaniline | 72 | | 72 | | 41-125 | 0 | | 50 |
| Dibenzofuran | 76 | | 74 | | 40-140 | 3 | | 50 |
| 2-Methylnaphthalene | 72 | | 70 | | 40-140 | 3 | | 50 |
| n-Nitrosodimethylamine | 60 | | 59 | | 22-100 | 2 | | 50 |
| 2,4,6-Trichlorophenol | 80 | | 80 | | 30-130 | 0 | | 50 |
| P-Chloro-M-Cresol | 82 | | 80 | | 26-103 | 2 | | 50 |
| 2-Chlorophenol | 70 | | 68 | | 25-102 | 3 | | 50 |
| 2,4-Dichlorophenol | 76 | | 76 | | 30-130 | 0 | | 50 |
| 2,4-Dimethylphenol | 79 | | 78 | | 30-130 | 1 | | 50 |
| 2-Nitrophenol | 70 | | 69 | | 30-130 | 1 | | 50 |
| 4-Nitrophenol | 88 | | 88 | | 11-114 | 0 | | 50 |
| 2,4-Dinitrophenol | 54 | | 51 | | 4-130 | 6 | | 50 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3 | | | | | | | | |
| 4,6-Dinitro-o-cresol | 75 | | 74 | | 10-130 | 1 | | 50 |
| Pentachlorophenol | 61 | | 61 | | 17-109 | 0 | | 50 |
| Phenol | 64 | | 69 | | 26-90 | 8 | | 50 |
| 2-Methylphenol | 72 | | 70 | | 30-130 | 3 | | 50 |
| 3-Methylphenol/4-Methylphenol | 74 | | 73 | | 30-130 | 1 | | 50 |
| 2,4,5-Trichlorophenol | 83 | | 82 | | 30-130 | 1 | | 50 |
| Benzoic Acid | 46 | | 45 | | 10-110 | 2 | | 50 |
| Benzyl Alcohol | 74 | | 73 | | 40-140 | 1 | | 50 |
| Carbazole | 78 | | 78 | | 54-128 | 0 | | 50 |
| Pyridine | 51 | | 52 | | 10-93 | 2 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|----------------------|------------------|------|-------------------|------|------------------------|
| 2-Fluorophenol | 69 | | 66 | | 25-120 |
| Phenol-d6 | 75 | | 73 | | 10-120 |
| Nitrobenzene-d5 | 70 | | 68 | | 23-120 |
| 2-Fluorobiphenyl | 76 | | 73 | | 30-120 |
| 2,4,6-Tribromophenol | 78 | | 77 | | 0-136 |
| 4-Terphenyl-d14 | 79 | | 79 | | 18-120 |

PETROLEUM HYDROCARBONS

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 10:33
Analyst: AR
Percent Solids: 21%

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 158000 | | ug/kg | 151000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 71 | | 40-140 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 11:06
Analyst: AR
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | ND | | ug/kg | 281000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 69 | | 40-140 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 11:38
Analyst: AR
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | ND | | ug/kg | 156000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 81 | | 40-140 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/26/13 11:16
Analyst: AR
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 14:37

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | ND | | ug/kg | 514000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 59 | | 40-140 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 10:33
Analyst: AR
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | ND | | ug/kg | 366000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 67 | | 40-140 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 11:06
Analyst: AR
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | ND | | ug/kg | 120000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 80 | | 40-140 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 11:38
Analyst: AR
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 501000 | | ug/kg | 357000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 77 | | 40-140 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 12:11
Analyst: AR
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|--------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | ND | | ug/kg | 328000 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 80 | | 40-140 |

Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8015C(M)
 Analytical Date: 06/25/13 09:26
 Analyst: AR

Extraction Method: EPA 3546
 Extraction Date: 06/25/13 00:33

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-------|-----|
| Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-03,05-08 Batch: WG617250-1 | | | | | |
| TPH | ND | | ug/kg | 33100 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|------------------------|
| o-Terphenyl | 80 | | 40-140 |

Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8015C(M)
 Analytical Date: 06/26/13 09:38
 Analyst: AR

Extraction Method: EPA 3546
 Extraction Date: 06/25/13 14:37

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|-------|-----|
| Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 04 Batch: WG617482-1 | | | | | |
| TPH | ND | | ug/kg | 32700 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|------------------------|
| o-Terphenyl | 83 | | 40-140 |

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-03,05-08 Batch: WG617250-2 | | | | | | | | |
| TPH | 101 | | - | | 40-140 | - | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-------------|------------------|------|-------------------|------|------------------------|
| o-Terphenyl | 90 | | | | 40-140 |

| | | | | | | | | |
|---|-----|--|---|--|--------|---|--|----|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 04 Batch: WG617482-2 | | | | | | | | |
| TPH | 100 | | - | | 40-140 | - | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-------------|------------------|------|-------------------|------|------------------------|
| o-Terphenyl | 90 | | | | 40-140 |

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1311048
Report Date: 06/26/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-03,05-08 QC Batch ID: WG617250-3 QC Sample: L1311679-01 Client ID: DUP Sample | | | | | | |
| TPH | 132000 | 116000 | ug/kg | 13 | | 40 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|-----------|-----------|---------------------|
| o-Terphenyl | 77 | | 88 | | 40-140 |

| | | | | | | |
|---|----|--|----|--|----|----|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 04 QC Batch ID: WG617482-3 QC Sample: L1311048-04 Client ID: RC-WC-061713-04 | | | | | | |
| TPH | ND | | ND | | NC | 40 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|-----------|-----------|---------------------|
| o-Terphenyl | 59 | | 50 | | 40-140 |

PCBS

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/18/13 21:25
Analyst: KB
Percent Solids: 21%

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|-----|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1221 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1232 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1242 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1248 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1254 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1260 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1262 | ND | | ug/kg | 153 | -- | 1 |
| Aroclor 1268 | ND | | ug/kg | 153 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 33 | | 30-150 |
| Decachlorobiphenyl | 37 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 32 | | 30-150 |
| Decachlorobiphenyl | 34 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/18/13 21:39
Analyst: KB
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|-----|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1221 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1232 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1242 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1248 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1254 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1260 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1262 | ND | | ug/kg | 279 | -- | 1 |
| Aroclor 1268 | ND | | ug/kg | 279 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 68 | | 30-150 |
| Decachlorobiphenyl | 68 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 65 | | 30-150 |
| Decachlorobiphenyl | 62 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/18/13 21:52
Analyst: KB
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|-----|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1221 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1232 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1242 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1248 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1254 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1260 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1262 | ND | | ug/kg | 152 | -- | 1 |
| Aroclor 1268 | ND | | ug/kg | 152 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 57 | | 30-150 |
| Decachlorobiphenyl | 55 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 55 | | 30-150 |
| Decachlorobiphenyl | 50 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/18/13 22:05
Analyst: KB
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|-----|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1221 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1232 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1242 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1248 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1254 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1260 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1262 | ND | | ug/kg | 498 | -- | 1 |
| Aroclor 1268 | ND | | ug/kg | 498 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 64 | | 30-150 |
| Decachlorobiphenyl | 62 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 62 | | 30-150 |
| Decachlorobiphenyl | 58 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/18/13 22:18
Analyst: KB
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|-----|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1221 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1232 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1242 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1248 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1254 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1260 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1262 | ND | | ug/kg | 356 | -- | 1 |
| Aroclor 1268 | ND | | ug/kg | 356 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 65 | | 30-150 |
| Decachlorobiphenyl | 63 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 61 | | 30-150 |
| Decachlorobiphenyl | 56 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/22/13 17:09
Analyst: TQ
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/22/13 01:41
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/22/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/22/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|-----|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1221 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1232 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1242 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1248 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1254 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1260 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1262 | ND | | ug/kg | 120 | -- | 1 |
| Aroclor 1268 | ND | | ug/kg | 120 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 67 | | 30-150 |
| Decachlorobiphenyl | 71 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 64 | | 30-150 |
| Decachlorobiphenyl | 63 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/18/13 22:45
Analyst: KB
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|------|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1221 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1232 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1242 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1248 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1254 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1260 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1262 | ND | | ug/kg | 1410 | -- | 4 |
| Aroclor 1268 | ND | | ug/kg | 1410 | -- | 4 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 65 | | 30-150 |
| Decachlorobiphenyl | 65 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 64 | | 30-150 |
| Decachlorobiphenyl | 61 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 06/18/13 22:58
Analyst: KB
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------------------------|--------|-----------|-------|-----|-----|-----------------|
| PCB by GC - Westborough Lab | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1221 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1232 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1242 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1248 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1254 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1260 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1262 | ND | | ug/kg | 317 | -- | 1 |
| Aroclor 1268 | ND | | ug/kg | 317 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 53 | | 30-150 |
| Decachlorobiphenyl | 51 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 51 | | 30-150 |
| Decachlorobiphenyl | 47 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 06/18/13 23:37
 Analyst: KB

Extraction Method: EPA 3546
 Extraction Date: 06/18/13 00:46
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 06/18/13
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 06/18/13

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|------|-----|
| PCB by GC - Westborough Lab for sample(s): 01-05,07-08 Batch: WG615593-1 | | | | | |
| Aroclor 1016 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1221 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1232 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1242 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1248 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1254 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1260 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1262 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1268 | ND | | ug/kg | 33.1 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------------------|-----------|-----------|------------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 69 | | 30-150 |
| Decachlorobiphenyl | 61 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 72 | | 30-150 |
| Decachlorobiphenyl | 63 | | 30-150 |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 06/22/13 14:08
 Analyst: TQ

Extraction Method: EPA 3546
 Extraction Date: 06/22/13 01:41
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 06/22/13
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 06/22/13

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|-----|
| PCB by GC - Westborough Lab for sample(s): 06 Batch: WG616852-1 | | | | | |
| Aroclor 1016 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1221 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1232 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1242 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1248 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1254 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1260 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1262 | ND | | ug/kg | 33.1 | -- |
| Aroclor 1268 | ND | | ug/kg | 33.1 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------------------|-----------|-----------|------------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 30-150 |
| Decachlorobiphenyl | 85 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 71 | | 30-150 |
| Decachlorobiphenyl | 73 | | 30-150 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| PCB by GC - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG615593-2 WG615593-3 | | | | | | | | |
| Aroclor 1016 | 65 | | 67 | | 40-140 | 3 | | 50 |
| Aroclor 1260 | 59 | | 64 | | 40-140 | 8 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------------------|------------------|------|-------------------|------|------------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 68 | | 30-150 |
| Decachlorobiphenyl | 61 | | 66 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 70 | | 66 | | 30-150 |
| Decachlorobiphenyl | 63 | | 65 | | 30-150 |

| | | | | | | | | |
|---|----|--|----|--|--------|---|--|----|
| PCB by GC - Westborough Lab Associated sample(s): 06 Batch: WG616852-2 WG616852-3 | | | | | | | | |
| Aroclor 1016 | 79 | | 74 | | 40-140 | 7 | | 50 |
| Aroclor 1260 | 82 | | 77 | | 40-140 | 6 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------------------|------------------|------|-------------------|------|------------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 79 | | 74 | | 30-150 |
| Decachlorobiphenyl | 91 | | 84 | | 30-150 |
| 2,4,5,6-Tetrachloro-m-xylene | 76 | | 72 | | 30-150 |
| Decachlorobiphenyl | 77 | | 73 | | 30-150 |

PESTICIDES

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 10:06
Analyst: JC
Percent Solids: 21%

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 37.2 | -- | 1 |
| Lindane | ND | | ug/kg | 15.5 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 15.5 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 37.2 | -- | 1 |
| Heptachlor | ND | | ug/kg | 18.6 | -- | 1 |
| Aldrin | ND | | ug/kg | 37.2 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 69.7 | -- | 1 |
| Endrin | ND | | ug/kg | 15.5 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 46.4 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 37.2 | -- | 1 |
| Dieldrin | ND | | ug/kg | 23.2 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 37.2 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 37.2 | -- | 1 |
| 4,4'-DDT | ND | | ug/kg | 69.7 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 37.2 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 37.2 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 15.5 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 69.7 | -- | 1 |
| Toxaphene | ND | | ug/kg | 697 | -- | 1 |
| Chlordane | ND | | ug/kg | 302 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 46.4 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 46.4 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 95 | | 30-150 | A |
| Decachlorobiphenyl | 101 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 65 | | 30-150 | B |
| Decachlorobiphenyl | 78 | | 30-150 | B |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 16:37
Analyst: SH
Percent Solids: 21%

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCPPP | ND | | mg/kg | 15.6 | -- | 1 |
| MCPA | ND | | mg/kg | 15.6 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.156 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.156 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.156 | -- | 1 |
| 2,4-D | ND | | mg/kg | 0.781 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 0.781 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 0.781 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.781 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.156 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 99 | | 30-150 | A |
| DCAA | 105 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 10:19
Analyst: JC
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 67.6 | -- | 1 |
| Lindane | ND | | ug/kg | 28.2 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 28.2 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 67.6 | -- | 1 |
| Heptachlor | ND | | ug/kg | 33.8 | -- | 1 |
| Aldrin | ND | | ug/kg | 67.6 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 127 | -- | 1 |
| Endrin | ND | | ug/kg | 28.2 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 84.5 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 67.6 | -- | 1 |
| Dieldrin | ND | | ug/kg | 42.2 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 67.6 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 67.6 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 67.6 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 67.6 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 28.2 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 127 | -- | 1 |
| Toxaphene | ND | | ug/kg | 1270 | -- | 1 |
| Chlordane | ND | | ug/kg | 549 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 84.5 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 84.5 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 78 | | 30-150 | A |
| Decachlorobiphenyl | 94 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 56 | | 30-150 | B |
| Decachlorobiphenyl | 78 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 10:19
Analyst: JC
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|-----|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| 4,4'-DDT | ND | | ug/kg | 127 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 78 | | 30-150 | A |
| Decachlorobiphenyl | 94 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 56 | | 30-150 | B |
| Decachlorobiphenyl | 78 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 16:57
Analyst: SH
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCPPP | ND | | mg/kg | 28.8 | -- | 1 |
| MCPA | ND | | mg/kg | 28.8 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.288 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.288 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.288 | -- | 1 |
| 2,4-D | ND | | mg/kg | 1.44 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 1.44 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 1.44 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 1.44 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.288 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 93 | | 30-150 | A |
| DCAA | 91 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 10:32
Analyst: JC
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 36.3 | -- | 1 |
| Lindane | ND | | ug/kg | 15.1 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 15.1 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 36.3 | -- | 1 |
| Heptachlor | ND | | ug/kg | 18.1 | -- | 1 |
| Aldrin | ND | | ug/kg | 36.3 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 68.0 | -- | 1 |
| Endrin | ND | | ug/kg | 15.1 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 45.3 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 36.3 | -- | 1 |
| Dieldrin | ND | | ug/kg | 22.7 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 36.3 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 36.3 | -- | 1 |
| 4,4'-DDT | ND | | ug/kg | 68.0 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 36.3 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 36.3 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 15.1 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 68.0 | -- | 1 |
| Toxaphene | ND | | ug/kg | 680 | -- | 1 |
| Chlordane | ND | | ug/kg | 295 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 45.3 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 45.3 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 98 | | 30-150 | A |
| Decachlorobiphenyl | 93 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 66 | | 30-150 | B |
| Decachlorobiphenyl | 84 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 17:17
Analyst: SH
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCPPP | ND | | mg/kg | 15.7 | -- | 1 |
| MCPA | ND | | mg/kg | 15.7 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.157 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.157 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.157 | -- | 1 |
| 2,4-D | ND | | mg/kg | 0.784 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 0.784 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 0.784 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.784 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.157 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 92 | | 30-150 | A |
| DCAA | 83 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 10:47
Analyst: JC
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 119 | -- | 1 |
| Lindane | ND | | ug/kg | 49.7 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 49.7 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 119 | -- | 1 |
| Heptachlor | ND | | ug/kg | 59.7 | -- | 1 |
| Aldrin | ND | | ug/kg | 119 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 224 | -- | 1 |
| Endrin | ND | | ug/kg | 49.7 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 149 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 119 | -- | 1 |
| Dieldrin | ND | | ug/kg | 74.6 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 119 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 119 | -- | 1 |
| 4,4'-DDT | ND | | ug/kg | 224 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 119 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 119 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 49.7 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 224 | -- | 1 |
| Toxaphene | ND | | ug/kg | 2240 | -- | 1 |
| Chlordane | ND | | ug/kg | 970 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 149 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 149 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 101 | | 30-150 | A |
| Decachlorobiphenyl | 95 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 60 | | 30-150 | B |
| Decachlorobiphenyl | 79 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 17:58
Analyst: SH
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCP | ND | | mg/kg | 51.8 | -- | 1 |
| MCPA | ND | | mg/kg | 51.8 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.518 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.518 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.518 | -- | 1 |
| 2,4-D | ND | | mg/kg | 2.59 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 2.59 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 2.59 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 2.59 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.518 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 74 | | 30-150 | A |
| DCAA | 43 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 11:13
Analyst: JC
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 85.2 | -- | 1 |
| Lindane | ND | | ug/kg | 35.5 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 35.5 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 85.2 | -- | 1 |
| Heptachlor | ND | | ug/kg | 42.6 | -- | 1 |
| Aldrin | ND | | ug/kg | 85.2 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 160 | -- | 1 |
| Endrin | ND | | ug/kg | 35.5 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 106 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 85.2 | -- | 1 |
| Dieldrin | ND | | ug/kg | 53.3 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 85.2 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 85.2 | -- | 1 |
| 4,4'-DDT | ND | | ug/kg | 160 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 85.2 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 85.2 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 35.5 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 160 | -- | 1 |
| Toxaphene | ND | | ug/kg | 1600 | -- | 1 |
| Chlordane | ND | | ug/kg | 692 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 106 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 106 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 75 | | 30-150 | A |
| Decachlorobiphenyl | 88 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 51 | | 30-150 | B |
| Decachlorobiphenyl | 77 | | 30-150 | B |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 18:18
Analyst: SH
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCPPP | ND | | mg/kg | 36.5 | -- | 1 |
| MCPA | ND | | mg/kg | 36.5 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.365 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.365 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.365 | -- | 1 |
| 2,4-D | ND | | mg/kg | 1.82 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 1.82 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 1.82 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 1.82 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.365 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 100 | | 30-150 | A |
| DCAA | 52 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 11:26
Analyst: JC
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 28.9 | -- | 1 |
| Lindane | ND | | ug/kg | 12.0 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 12.0 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 28.9 | -- | 1 |
| Heptachlor | ND | | ug/kg | 14.4 | -- | 1 |
| Aldrin | ND | | ug/kg | 28.9 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 54.1 | -- | 1 |
| Endrin | ND | | ug/kg | 12.0 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 36.1 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 28.9 | -- | 1 |
| Dieldrin | ND | | ug/kg | 18.0 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 28.9 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 28.9 | -- | 1 |
| 4,4'-DDT | ND | | ug/kg | 54.1 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 28.9 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 28.9 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 12.0 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 54.1 | -- | 1 |
| Toxaphene | ND | | ug/kg | 541 | -- | 1 |
| Chlordane | ND | | ug/kg | 234 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 36.1 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 36.1 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 85 | | 30-150 | A |
| Decachlorobiphenyl | 77 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 60 | | 30-150 | B |
| Decachlorobiphenyl | 80 | | 30-150 | B |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 18:38
Analyst: SH
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCPPP | ND | | mg/kg | 12.4 | -- | 1 |
| MCPA | ND | | mg/kg | 12.4 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.124 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.124 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.124 | -- | 1 |
| 2,4-D | ND | | mg/kg | 0.620 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 0.620 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 0.620 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.620 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.124 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 73 | | 30-150 | A |
| DCAA | 55 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 11:39
Analyst: JC
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 85.8 | -- | 1 |
| Lindane | ND | | ug/kg | 35.7 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 35.7 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 85.8 | -- | 1 |
| Heptachlor | ND | | ug/kg | 42.9 | -- | 1 |
| Aldrin | ND | | ug/kg | 85.8 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 161 | -- | 1 |
| Endrin | ND | | ug/kg | 35.7 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 107 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 85.8 | -- | 1 |
| Dieldrin | ND | | ug/kg | 53.6 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 85.8 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 85.8 | -- | 1 |
| 4,4'-DDT | ND | | ug/kg | 161 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 85.8 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 85.8 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 35.7 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 161 | -- | 1 |
| Toxaphene | ND | | ug/kg | 1610 | -- | 1 |
| Chlordane | ND | | ug/kg | 697 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 107 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 107 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 88 | | 30-150 | A |
| Decachlorobiphenyl | 87 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 62 | | 30-150 | B |
| Decachlorobiphenyl | 87 | | 30-150 | B |



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 18:58
Analyst: SH
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCPPP | ND | | mg/kg | 36.2 | -- | 1 |
| MCPA | ND | | mg/kg | 36.2 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.362 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.362 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.362 | -- | 1 |
| 2,4-D | ND | | mg/kg | 1.81 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 1.81 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 1.81 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 1.81 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.362 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 77 | | 30-150 | A |
| DCAA | 46 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 06/21/13 11:51
Analyst: JC
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Pesticides by GC - Westborough Lab | | | | | | |
| Delta-BHC | ND | | ug/kg | 76.6 | -- | 1 |
| Lindane | ND | | ug/kg | 31.9 | -- | 1 |
| Alpha-BHC | ND | | ug/kg | 31.9 | -- | 1 |
| Beta-BHC | ND | | ug/kg | 76.6 | -- | 1 |
| Heptachlor | ND | | ug/kg | 38.3 | -- | 1 |
| Aldrin | ND | | ug/kg | 76.6 | -- | 1 |
| Heptachlor epoxide | ND | | ug/kg | 144 | -- | 1 |
| Endrin | ND | | ug/kg | 31.9 | -- | 1 |
| Endrin aldehyde | ND | | ug/kg | 95.8 | -- | 1 |
| Endrin ketone | ND | | ug/kg | 76.6 | -- | 1 |
| Dieldrin | ND | | ug/kg | 47.9 | -- | 1 |
| 4,4'-DDE | ND | | ug/kg | 76.6 | -- | 1 |
| 4,4'-DDD | ND | | ug/kg | 76.6 | -- | 1 |
| 4,4'-DDT | ND | | ug/kg | 144 | -- | 1 |
| Endosulfan I | ND | | ug/kg | 76.6 | -- | 1 |
| Endosulfan II | ND | | ug/kg | 76.6 | -- | 1 |
| Endosulfan sulfate | ND | | ug/kg | 31.9 | -- | 1 |
| Methoxychlor | ND | | ug/kg | 144 | -- | 1 |
| Toxaphene | ND | | ug/kg | 1440 | -- | 1 |
| Chlordane | ND | | ug/kg | 623 | -- | 1 |
| cis-Chlordane | ND | | ug/kg | 95.8 | -- | 1 |
| trans-Chlordane | ND | | ug/kg | 95.8 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 90 | | 30-150 | A |
| Decachlorobiphenyl | 87 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 58 | | 30-150 | B |
| Decachlorobiphenyl | 81 | | 30-150 | B |

Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 19:18
Analyst: SH
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15
Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | |
| MCPPP | ND | | mg/kg | 33.1 | -- | 1 |
| MCPA | ND | | mg/kg | 33.1 | -- | 1 |
| Dalapon | ND | | mg/kg | 0.331 | -- | 1 |
| Dicamba | ND | | mg/kg | 0.331 | -- | 1 |
| Dichloroprop | ND | | mg/kg | 0.331 | -- | 1 |
| 2,4-D | ND | | mg/kg | 1.66 | -- | 1 |
| 2,4-DB | ND | | mg/kg | 1.66 | -- | 1 |
| 2,4,5-T | ND | | mg/kg | 1.66 | -- | 1 |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 1.66 | -- | 1 |
| Dinoseb | ND | | mg/kg | 0.331 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 98 | | 30-150 | A |
| DCAA | 63 | | 30-150 | B |

Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A(M)
 Analytical Date: 06/19/13 15:36
 Analyst: SH

Extraction Method: EPA 8151A
 Extraction Date: 06/18/13 00:15

Methylation Date: 06/18/13 15:05

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-------|-----|
| Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-08 Batch: WG615586-1 | | | | | |
| MCPPP | ND | | mg/kg | 3.33 | -- |
| MCPA | ND | | mg/kg | 3.33 | -- |
| Dalapon | ND | | mg/kg | 0.033 | -- |
| Dicamba | ND | | mg/kg | 0.033 | -- |
| Dichloroprop | ND | | mg/kg | 0.033 | -- |
| 2,4-D | ND | | mg/kg | 0.166 | -- |
| 2,4-DB | ND | | mg/kg | 0.166 | -- |
| 2,4,5-T | ND | | mg/kg | 0.166 | -- |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.166 | -- |
| Dinoseb | ND | | mg/kg | 0.033 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|-----------|-----------|------------------------|--------|
| DCAA | 90 | | 30-150 | A |
| DCAA | 34 | | 30-150 | B |

Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 06/21/13 09:53
 Analyst: JC

Extraction Method: EPA 3546
 Extraction Date: 06/18/13 00:54
 Cleanup Method1: EPA 3620B
 Cleanup Date1: 06/20/13

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|-----|
| Pesticides by GC - Westborough Lab for sample(s): 01-08 Batch: WG615596-1 | | | | | |
| Delta-BHC | ND | | ug/kg | 7.95 | -- |
| Lindane | ND | | ug/kg | 3.31 | -- |
| Alpha-BHC | ND | | ug/kg | 3.31 | -- |
| Beta-BHC | ND | | ug/kg | 7.95 | -- |
| Heptachlor | ND | | ug/kg | 3.97 | -- |
| Aldrin | ND | | ug/kg | 7.95 | -- |
| Heptachlor epoxide | ND | | ug/kg | 14.9 | -- |
| Endrin | ND | | ug/kg | 3.31 | -- |
| Endrin aldehyde | ND | | ug/kg | 9.93 | -- |
| Endrin ketone | ND | | ug/kg | 7.95 | -- |
| Dieldrin | ND | | ug/kg | 4.97 | -- |
| 4,4'-DDE | ND | | ug/kg | 7.95 | -- |
| 4,4'-DDD | ND | | ug/kg | 7.95 | -- |
| 4,4'-DDT | ND | | ug/kg | 14.9 | -- |
| Endosulfan I | ND | | ug/kg | 7.95 | -- |
| Endosulfan II | ND | | ug/kg | 7.95 | -- |
| Endosulfan sulfate | ND | | ug/kg | 3.31 | -- |
| Methoxychlor | ND | | ug/kg | 14.9 | -- |
| Toxaphene | ND | | ug/kg | 149 | -- |
| Chlordane | ND | | ug/kg | 64.6 | -- |
| cis-Chlordane | ND | | ug/kg | 9.93 | -- |
| trans-Chlordane | ND | | ug/kg | 9.93 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|-----------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 95 | | 30-150 | A |
| Decachlorobiphenyl | 109 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 66 | | 30-150 | B |
| Decachlorobiphenyl | 92 | | 30-150 | B |



Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG615586-2 WG615586-3 | | | | | | | | |
| MCPP | 85 | | 106 | | 30-150 | 22 | | 30 |
| MCPA | 88 | | 103 | | 30-150 | 16 | | 30 |
| Dalapon | 94 | | 76 | | 30-150 | 21 | | 30 |
| Dicamba | 88 | | 100 | | 30-150 | 13 | | 30 |
| Dichloroprop | 89 | | 99 | | 30-150 | 11 | | 30 |
| 2,4-D | 104 | | 117 | | 30-150 | 12 | | 30 |
| 2,4-DB | 120 | | 136 | | 30-150 | 13 | | 30 |
| 2,4,5-T | 96 | | 106 | | 30-150 | 10 | | 30 |
| 2,4,5-TP (Silvex) | 92 | | 100 | | 30-150 | 8 | | 30 |
| Dinoseb | 5 | Q | 3 | Q | 30-150 | 42 | Q | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|-----------|------------------|------|-------------------|------|------------------------|--------|
| DCAA | 84 | | 93 | | 30-150 | A |
| DCAA | 39 | | 34 | | 30-150 | B |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG615596-2 WG615596-3 | | | | | | | | |
| Delta-BHC | 80 | | 96 | | 30-150 | 18 | | 30 |
| Lindane | 86 | | 105 | | 30-150 | 20 | | 30 |
| Alpha-BHC | 89 | | 106 | | 30-150 | 17 | | 30 |
| Beta-BHC | 90 | | 104 | | 30-150 | 14 | | 30 |
| Heptachlor | 95 | | 112 | | 30-150 | 16 | | 30 |
| Aldrin | 106 | | 127 | | 30-150 | 18 | | 30 |
| Heptachlor epoxide | 102 | | 124 | | 30-150 | 19 | | 30 |
| Endrin | 139 | | 168 | Q | 30-150 | 19 | | 30 |
| Endrin aldehyde | 89 | | 104 | | 30-150 | 16 | | 30 |
| Endrin ketone | 93 | | 116 | | 30-150 | 22 | | 30 |
| Dieldrin | 117 | | 143 | | 30-150 | 20 | | 30 |
| 4,4'-DDE | 107 | | 126 | | 30-150 | 16 | | 30 |
| 4,4'-DDD | 111 | | 136 | | 30-150 | 20 | | 30 |
| 4,4'-DDT | 112 | | 140 | | 30-150 | 22 | | 30 |
| Endosulfan I | 112 | | 136 | | 30-150 | 19 | | 30 |
| Endosulfan II | 106 | | 127 | | 30-150 | 18 | | 30 |
| Endosulfan sulfate | 95 | | 120 | | 30-150 | 23 | | 30 |
| Methoxychlor | 100 | | 129 | | 30-150 | 25 | | 30 |
| cis-Chlordane | 112 | | 133 | | 30-150 | 17 | | 30 |
| trans-Chlordane | 115 | | 137 | | 30-150 | 17 | | 30 |

Lab Control Sample Analysis **Batch Quality Control**

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|-----------|------------------|------|-------------------|------|---------------------|-----|------|------------|
|-----------|------------------|------|-------------------|------|---------------------|-----|------|------------|

Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG615596-2 WG615596-3

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|------------------------------|------------------|------|-------------------|------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 100 | | 109 | | 30-150 | A |
| Decachlorobiphenyl | 98 | | 119 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 69 | | 79 | | 30-150 | B |
| Decachlorobiphenyl | 82 | | 99 | | 30-150 | B |

METALS

Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01

Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 21%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 660 | | mg/kg | 1.9 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:42 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 82 | | mg/kg | 1.9 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:42 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 1.9 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:42 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 260 | | mg/kg | 1.9 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:42 | EPA 3050B | 1,6010C | KL |
| Lead, Total | 27 | | mg/kg | 9.3 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:42 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | 3.9 | | mg/kg | 0.36 | -- | 1 | 06/18/13 15:52 | 06/19/13 15:13 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 3.7 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:42 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 1.9 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:42 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02

Date Collected: 06/17/13 11:40

Client ID: RC-WC-061713-02

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 11%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 1700 | | mg/kg | 3.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:46 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 200 | | mg/kg | 3.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:46 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 3.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:46 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 290 | | mg/kg | 3.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:46 | EPA 3050B | 1,6010C | KL |
| Lead, Total | 65 | | mg/kg | 17 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:46 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | 0.90 | | mg/kg | 0.67 | -- | 1 | 06/18/13 15:52 | 06/19/13 15:15 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 6.8 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:46 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 3.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:46 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03

Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 21%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 35 | | mg/kg | 3.6 | -- | 2 | 06/18/13 13:01 | 06/19/13 14:50 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 30 | | mg/kg | 3.6 | -- | 2 | 06/18/13 13:01 | 06/19/13 14:50 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 3.6 | -- | 2 | 06/18/13 13:01 | 06/19/13 14:50 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 75 | | mg/kg | 3.6 | -- | 2 | 06/18/13 13:01 | 06/19/13 14:50 | EPA 3050B | 1,6010C | KL |
| Lead, Total | 20 | | mg/kg | 18 | -- | 2 | 06/18/13 13:01 | 06/19/13 14:50 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | 0.87 | | mg/kg | 0.34 | -- | 1 | 06/19/13 14:15 | 06/20/13 09:30 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 7.3 | -- | 2 | 06/18/13 13:01 | 06/19/13 14:50 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 3.6 | -- | 2 | 06/18/13 13:01 | 06/19/13 14:50 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04

Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 6%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|-----|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 90 | | mg/kg | 6.1 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:54 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 56 | | mg/kg | 6.1 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:54 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 6.1 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:54 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 220 | | mg/kg | 6.1 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:54 | EPA 3050B | 1,6010C | KL |
| Lead, Total | ND | | mg/kg | 30 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:54 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | 3.9 | | mg/kg | 1.0 | -- | 1 | 06/19/13 14:15 | 06/20/13 09:37 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 12 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:54 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 6.1 | -- | 1 | 06/18/13 13:01 | 06/19/13 14:54 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05

Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 9%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 440 | | mg/kg | 4.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:13 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 52 | | mg/kg | 4.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:13 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 4.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:13 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 100 | | mg/kg | 4.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:13 | EPA 3050B | 1,6010C | KL |
| Lead, Total | ND | | mg/kg | 22 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:13 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | 1.0 | | mg/kg | 0.91 | -- | 1 | 06/19/13 14:15 | 06/20/13 09:52 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 8.7 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:13 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 4.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:13 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06

Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 27%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 62 | | mg/kg | 1.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:17 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 29 | | mg/kg | 1.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:17 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 1.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:17 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 150 | | mg/kg | 1.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:17 | EPA 3050B | 1,6010C | KL |
| Lead, Total | 9.4 | | mg/kg | 7.1 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:17 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | 2.1 | | mg/kg | 0.28 | -- | 1 | 06/19/13 14:15 | 06/20/13 09:54 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 2.8 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:17 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 1.4 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:17 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07

Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 9%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 160 | | mg/kg | 4.2 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:20 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 48 | | mg/kg | 4.2 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:20 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 4.2 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:20 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 1200 | | mg/kg | 4.2 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:20 | EPA 3050B | 1,6010C | KL |
| Lead, Total | 48 | | mg/kg | 21 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:20 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | ND | | mg/kg | 0.82 | -- | 1 | 06/19/13 14:15 | 06/20/13 09:56 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 8.5 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:20 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 4.2 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:20 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08

Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08

Date Received: 06/17/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 10%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 180 | | mg/kg | 3.8 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:24 | EPA 3050B | 1,6010C | KL |
| Barium, Total | 46 | | mg/kg | 3.8 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:24 | EPA 3050B | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 3.8 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:24 | EPA 3050B | 1,6010C | KL |
| Chromium, Total | 700 | | mg/kg | 3.8 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:24 | EPA 3050B | 1,6010C | KL |
| Lead, Total | 33 | | mg/kg | 19 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:24 | EPA 3050B | 1,6010C | KL |
| Mercury, Total | 7.5 | | mg/kg | 0.75 | -- | 1 | 06/19/13 14:15 | 06/20/13 09:57 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 7.5 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:24 | EPA 3050B | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 3.8 | -- | 1 | 06/18/13 13:01 | 06/19/13 15:24 | EPA 3050B | 1,6010C | KL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG615742-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.08 | -- | 1 | 06/18/13 15:52 | 06/19/13 14:20 | 1,7471B | MC |

Prep Information

Digestion Method: EPA 7471B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-08 Batch: WG615764-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.40 | -- | 1 | 06/18/13 13:01 | 06/19/13 13:59 | 1,6010C | KL |
| Barium, Total | ND | | mg/kg | 0.40 | -- | 1 | 06/18/13 13:01 | 06/19/13 13:59 | 1,6010C | KL |
| Cadmium, Total | ND | | mg/kg | 0.40 | -- | 1 | 06/18/13 13:01 | 06/19/13 13:59 | 1,6010C | KL |
| Chromium, Total | ND | | mg/kg | 0.40 | -- | 1 | 06/18/13 13:01 | 06/19/13 13:59 | 1,6010C | KL |
| Lead, Total | ND | | mg/kg | 2.0 | -- | 1 | 06/18/13 13:01 | 06/19/13 13:59 | 1,6010C | KL |
| Selenium, Total | ND | | mg/kg | 0.80 | -- | 1 | 06/18/13 13:01 | 06/19/13 13:59 | 1,6010C | KL |
| Silver, Total | ND | | mg/kg | 0.40 | -- | 1 | 06/18/13 13:01 | 06/19/13 13:59 | 1,6010C | KL |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 03-08 Batch: WG616037-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.08 | -- | 1 | 06/19/13 14:15 | 06/20/13 09:22 | 1,7471B | MC |

Prep Information

Digestion Method: EPA 7471B



Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG615742-2 SRM Lot Number: 0518-10-02 | | | | | | | | |
| Mercury, Total | 105 | | - | | 67-133 | - | | |
| Total Metals - Westborough Lab Associated sample(s): 01-08 Batch: WG615764-2 SRM Lot Number: 0518-10-02 | | | | | | | | |
| Arsenic, Total | 104 | | - | | 81-119 | - | | |
| Barium, Total | 96 | | - | | 83-118 | - | | |
| Cadmium, Total | 94 | | - | | 82-117 | - | | |
| Chromium, Total | 97 | | - | | 80-119 | - | | |
| Lead, Total | 95 | | - | | 80-120 | - | | |
| Selenium, Total | 102 | | - | | 80-120 | - | | |
| Silver, Total | 102 | | - | | 66-134 | - | | |
| Total Metals - Westborough Lab Associated sample(s): 03-08 Batch: WG616037-2 SRM Lot Number: 0518-10-02 | | | | | | | | |
| Mercury, Total | 111 | | - | | 67-133 | - | | |

Matrix Spike Analysis **Batch Quality Control**

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG615742-4 QC Sample: L1310883-01 Client ID: MS Sample | | | | | | | | | | | | |
| Mercury, Total | 0.35 | 0.182 | 0.23 | 0 | Q | - | - | | 70-130 | - | | 35 |
| Total Metals - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615764-4 QC Sample: L1311087-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 34 | 11.1 | 48 | 126 | Q | - | - | | 75-125 | - | | 35 |
| Barium, Total | 330 | 185 | 470 | 76 | | - | - | | 75-125 | - | | 35 |
| Cadmium, Total | 6.0 | 4.71 | 9.2 | 68 | Q | - | - | | 75-125 | - | | 35 |
| Chromium, Total | 28 | 18.5 | 43 | 81 | | - | - | | 75-125 | - | | 35 |
| Lead, Total | 6900 | 47.1 | 5400 | 0 | Q | - | - | | 75-125 | - | | 35 |
| Selenium, Total | ND | 11.1 | 9.6 | 87 | | - | - | | 75-125 | - | | 35 |
| Silver, Total | ND | 27.7 | 29 | 105 | | - | - | | 75-125 | - | | 35 |
| Total Metals - Westborough Lab Associated sample(s): 03-08 QC Batch ID: WG616037-4 QC Sample: L1311048-03 Client ID: RC-WC-061713-03 | | | | | | | | | | | | |
| Mercury, Total | 0.87 | 0.668 | 1.0 | 19 | Q | - | - | | 70-130 | - | | 35 |

Lab Duplicate Analysis Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG615742-3 QC Sample: L1310883-01 Client ID: DUP Sample | | | | | | |
| Mercury, Total | 0.35 | ND | mg/kg | NC | | 35 |
| Total Metals - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615764-3 QC Sample: L1311087-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 34 | 22 | mg/kg | 43 | Q | 35 |
| Barium, Total | 330 | 240 | mg/kg | 32 | | 35 |
| Cadmium, Total | 6.0 | 3.5 | mg/kg | 53 | Q | 35 |
| Chromium, Total | 28 | 18 | mg/kg | 43 | Q | 35 |
| Lead, Total | 6900 | 5300 | mg/kg | 26 | | 35 |
| Selenium, Total | ND | ND | mg/kg | NC | | 35 |
| Silver, Total | ND | ND | mg/kg | NC | | 35 |
| Total Metals - Westborough Lab Associated sample(s): 03-08 QC Batch ID: WG616037-3 QC Sample: L1311048-03 Client ID: RC-WC-061713-03 | | | | | | |
| Mercury, Total | 0.87 | 2.4 | mg/kg | 94 | Q | 35 |

INORGANICS & MISCELLANEOUS

Project Name: FORT DEVENS**Project Number:** AC001.005**Lab Number:** L1311048**Report Date:** 06/26/13**SAMPLE RESULTS****Lab ID:** L1311048-01**Client ID:** RC-WC-061713-01**Sample Location:** DEVENS, MA**Matrix:** Sediment**Date Collected:** 06/17/13 11:20**Date Received:** 06/17/13**Field Prep:** Not Specified**Test Material Information****Source of Material:** Unknown**Description of Material:** Non-Metallic - Wet Soil**Particle Size:** Medium**Preliminary Burning Time (sec):** 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|---------------|----------------------|--------------------------|----------------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02

Client ID: RC-WC-061713-02

Sample Location: DEVENS, MA

Matrix: Sediment

Date Collected: 06/17/13 11:40

Date Received: 06/17/13

Field Prep: Not Specified

Test Material Information

Source of Material: Unknown

Description of Material: Non-Metallic - Wet Soil

Particle Size: Medium

Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03

Client ID: RC-WC-061713-03

Sample Location: DEVENS, MA

Matrix: Sediment

Date Collected: 06/17/13 12:10

Date Received: 06/17/13

Field Prep: Not Specified

Test Material Information

Source of Material: Unknown

Description of Material: Non-Metallic - Wet Soil

Particle Size: Medium

Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS**Project Number:** AC001.005**Lab Number:** L1311048**Report Date:** 06/26/13**SAMPLE RESULTS****Lab ID:** L1311048-04**Client ID:** RC-WC-061713-04**Sample Location:** DEVENS, MA**Matrix:** Sediment**Date Collected:** 06/17/13 12:35**Date Received:** 06/17/13**Field Prep:** Not Specified**Test Material Information****Source of Material:** Unknown**Description of Material:** Non-Metallic - Wet Soil**Particle Size:** Medium**Preliminary Burning Time (sec):** 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS**Project Number:** AC001.005**Lab Number:** L1311048**Report Date:** 06/26/13**SAMPLE RESULTS****Lab ID:** L1311048-05**Client ID:** RC-WC-061713-05**Sample Location:** DEVENS, MA**Matrix:** Sediment**Date Collected:** 06/17/13 13:10**Date Received:** 06/17/13**Field Prep:** Not Specified**Test Material Information****Source of Material:** Unknown**Description of Material:** Non-Metallic - Wet Soil**Particle Size:** Medium**Preliminary Burning Time (sec):** 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|---------------|----------------------|--------------------------|----------------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS**Project Number:** AC001.005**Lab Number:** L1311048**Report Date:** 06/26/13**SAMPLE RESULTS****Lab ID:** L1311048-06**Client ID:** RC-WC-061713-06**Sample Location:** DEVENS, MA**Matrix:** Sediment**Date Collected:** 06/17/13 13:30**Date Received:** 06/17/13**Field Prep:** Not Specified**Test Material Information****Source of Material:** Unknown**Description of Material:** Non-Metallic - Wet Soil**Particle Size:** Medium**Preliminary Burning Time (sec):** 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS**Project Number:** AC001.005**Lab Number:** L1311048**Report Date:** 06/26/13**SAMPLE RESULTS**

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS**Project Number:** AC001.005**Lab Number:** L1311048**Report Date:** 06/26/13**SAMPLE RESULTS****Lab ID:** L1311048-08**Client ID:** RC-WC-061713-08**Sample Location:** DEVENS, MA**Matrix:** Sediment**Date Collected:** 06/17/13 14:10**Date Received:** 06/17/13**Field Prep:** Not Specified**Test Material Information****Source of Material:** Unknown**Description of Material:** Non-Metallic - Wet Soil**Particle Size:** Medium**Preliminary Burning Time (sec):** 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 06/18/13 21:38 | 1,1030 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01
 Client ID: RC-WC-061713-01
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 11:20
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 20.9 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 6.4 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | 440 | | mg/kg | 50 | -- | 5 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02
 Client ID: RC-WC-061713-02
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 11:40
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 11.4 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 6.3 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | 28 | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03
 Client ID: RC-WC-061713-03
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 12:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 21.1 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 6.1 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04
 Client ID: RC-WC-061713-04
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 12:35
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 6.40 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 5.7 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05
 Client ID: RC-WC-061713-05
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 13:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 8.89 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 6.1 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06
 Client ID: RC-WC-061713-06
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 13:30
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 26.7 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 5.6 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07
 Client ID: RC-WC-061713-07
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 13:45
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 8.98 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 5.8 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08
 Client ID: RC-WC-061713-08
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 06/17/13 14:10
 Date Received: 06/17/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 10.0 | | % | 0.100 | NA | 1 | - | 06/17/13 20:31 | 30,2540G | RD |
| pH (H) | 5.8 | | SU | - | NA | 1 | - | 06/17/13 21:30 | 1,9045D | RD |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Project Name: FORT DEVENS

Lab Number: L1311048

Project Number: AC001.005

Report Date: 06/26/13

Method Blank Analysis

Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG615834-1 | | | | | | | | | | |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:31 | 1,7.3 | TL |
| General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG615836-1 | | | | | | | | | | |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 06/18/13 17:30 | 06/18/13 19:19 | 1,7.3 | TL |



Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORT DEVENS**Project Number:** AC001.005**Lab Number:** L1311048**Report Date:** 06/26/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG615583-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG615834-2 | | | | | | | | |
| Cyanide, Reactive | 47 | | - | | 30-125 | - | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG615836-2 | | | | | | | | |
| Sulfide, Reactive | 103 | | - | | 60-125 | - | | 40 |

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1311048
Report Date: 06/26/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615558-1 QC Sample: L1311008-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 84.7 | 85.2 | % | 1 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615583-2 QC Sample: L1311008-01 Client ID: DUP Sample | | | | | | |
| pH | 8.0 | 7.9 | SU | 1 | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615834-3 QC Sample: L1311040-01 Client ID: DUP Sample | | | | | | |
| Cyanide, Reactive | ND | ND | mg/kg | NC | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615836-3 QC Sample: L1311040-01 Client ID: DUP Sample | | | | | | |
| Sulfide, Reactive | ND | ND | mg/kg | NC | | 40 |

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 06/17/2013 18:05

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1311048-01A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-01B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-01C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-01D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |
| L1311048-01E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-01F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-01G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-01H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-02A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1311048-02B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-02C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-02D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |
| L1311048-02E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-02F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-02G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-02H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-03A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-03B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-03C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-03D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |
| L1311048-03E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1311048-03F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-03G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-03H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-04A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-04B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-04C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-04D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |
| L1311048-04E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-04F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1311048-04G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-04H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-05A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-05B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-05C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-05D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |
| L1311048-05E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-05F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-05G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1311048-05H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-06A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-06B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-06C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-06D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |
| L1311048-06E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-06F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-06G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-06H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-07A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-07B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-07C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-07D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1311048-07E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-07F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-07G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-07H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-08A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-08B | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-08C | Vial water preserved | A | N/A | 3.3 | Y | Absent | 8260HLW(14) |
| L1311048-08D | Vial Large unpreserved | A | N/A | 3.3 | Y | Absent | 8260HLW(2) |
| L1311048-08E | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1311048-08F | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-08G | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |
| L1311048-08H | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180) |

*Values in parentheses indicate holding time in days



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report



Project Name: FORT DEVENS**Lab Number:** L1311048**Project Number:** AC001.005**Report Date:** 06/26/13**Data Qualifiers**

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.**P** - The RPD between the results for the two columns exceeds the method-specified criteria.**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)**R** - Analytical results are from sample re-analysis.**RE** - Analytical results are from sample re-extraction.**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).**ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised June 17, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S₂-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B₅+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. *Organic Parameters:* SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. *Organic Parameters:* EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NJ-DEP.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether, Ethyl tert-butyl ether, Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE). **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, 1,3,5-Trimethylbenzene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. **EPA 8015C:** TPH. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1317827 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 09/15/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|-------------------|----------------------------|---------------------------------|
| L1317827-01 | SA71-WC-091113-01 | PLOW SHOP POND | 09/11/13 11:30 |
| L1317827-02 | SA71-WC-091113-02 | PLOW SHOP POND | 09/11/13 11:40 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).


M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/15/13

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

SAMPLE RESULTS

Lab ID: L1317827-01
Client ID: SA71-WC-091113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 11:30
Date Received: 09/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|----------|----|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Specific Conductance | 640 | | umhos/cm | 10 | 10. | 1 | - | 09/11/13 21:21 | 1,9050A | EL |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

SAMPLE RESULTS

Lab ID: L1317827-02
Client ID: SA71-WC-091113-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 11:40
Date Received: 09/11/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|----------|----|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Specific Conductance | 1800 | | umhos/cm | 10 | 10. | 1 | - | 09/11/13 21:21 | 1,9050A | EL |



Lab Control Sample Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG635427-1 | | | | | | | | |
| Specific Conductance | 97 | | - | | 80-120 | - | | |

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|----------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG635427-2 QC Sample: L1317666-03 Client ID: DUP Sample | | | | | | |
| Specific Conductance | 42. | 55 | umhos/cm | 27 | Q | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---------------|
| L1317827-01A | Amber 120ml unpreserved | A | N/A | 3.9 | Y | Absent | COND-9050(28) |
| L1317827-02A | Amber 120ml unpreserved | A | N/A | 3.9 | Y | Absent | COND-9050(28) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters:* SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319527 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/03/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1319527-01 | RC-WC-100113-01 | PLOW SHOP POND | 10/01/13 09:20 |
| L1319527-02 | RC-WC-100113-02 | PLOW SHOP POND | 10/01/13 09:25 |
| L1319527-03 | RC-WC-100113-03 | PLOW SHOP POND | 10/01/13 09:40 |
| L1319527-04 | RC-WC-100113-04 | PLOW SHOP POND | 10/01/13 09:45 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319527-01 through -04: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/03/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-01
 Client ID: RC-WC-100113-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 50%

Date Collected: 10/01/13 09:20
 Date Received: 10/01/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 187 | Q | mg/kg | 0.137 | 0.017 | 5 | 10/02/13 14:00 | 10/03/13 11:48 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-02
 Client ID: RC-WC-100113-02
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 50%

Date Collected: 10/01/13 09:25
 Date Received: 10/01/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 195 | Q | mg/kg | 0.139 | 0.017 | 5 | 10/02/13 14:00 | 10/03/13 11:54 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-03
 Client ID: RC-WC-100113-03
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 59%

Date Collected: 10/01/13 09:40
 Date Received: 10/01/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 406 | Q | mg/kg | 0.473 | 0.058 | 20 | 10/02/13 14:00 | 10/03/13 12:07 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-04
 Client ID: RC-WC-100113-04
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 22%

Date Collected: 10/01/13 09:45
 Date Received: 10/01/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 2700 | Q | mg/kg | 3.14 | 0.389 | 50 | 10/02/13 14:00 | 10/03/13 12:08 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG640718-1 | | | | | | | | | | |
| Arsenic, Total | 0.012 | J | mg/kg | 0.050 | 0.006 | 2 | 10/02/13 14:00 | 10/03/13 11:47 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG640718-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 108 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640718-4 WG640718-5 QC Sample: L1319527-01 Client ID: RC-WC-100113-01 | | | | | | | | | | | | |
| Arsenic, Total | 187. | 110 | 309 | 111 | | 306 | 108 | | 80-120 | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640718-6 WG640718-7 QC Sample: L1319573-06 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 156. | 547 | 696 | 99 | | 744 | 108 | | 80-120 | 7 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1319527
Report Date: 10/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640718-3 QC Sample: L1319527-01 Client ID: RC-WC-100113-01 | | | | | | |
| Arsenic, Total | 187. | 195 | mg/kg | 4 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-01
Client ID: RC-WC-100113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:20
Date Received: 10/01/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 49.8 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 07:56 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-02
Client ID: RC-WC-100113-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:25
Date Received: 10/01/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 50.1 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 07:56 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-03
Client ID: RC-WC-100113-03
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:40
Date Received: 10/01/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 59.4 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 07:56 | 30,2540G | DJ |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-04
Client ID: RC-WC-100113-04
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:45
Date Received: 10/01/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 22.2 | | % | 0.100 | 0.100 | 1 | - | 10/02/13 07:56 | 30,2540G | DJ |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640579-1 QC Sample: L1319527-01 Client ID: RC-WC-100113-01 | | | | | | |
| Solids, Total | 49.8 | 52.6 | % | 5 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319527-01A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319527-02A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319527-03A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319527-04A | Amber 120ml unpreserved | A | N/A | 2.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 28 of 31 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

[illegible]



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1319993 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 10/08/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1319993-01 | RC-WC-100713-01 | PLOW SHOP POND | 10/07/13 13:30 |
| L1319993-02 | RC-WC-100713-02 | PLOW SHOP POND | 10/07/13 13:35 |
| L1319993-03 | RC-WC-100713-03 | PLOW SHOP POND | 10/07/13 13:40 |
| L1319993-04 | RC-WC-100713-04 | PLOW SHOP POND | 10/07/13 13:45 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319993-01 through -04: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13


Case Narrative (continued)

Total Solids

The WG641998-1 Laboratory Duplicate RPD (23%), performed on L1319993-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/08/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-01
 Client ID: RC-WC-100713-01
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 44%

Date Collected: 10/07/13 13:30
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 150 | Q | mg/kg | 0.162 | 0.020 | 5 | 10/07/13 20:00 | 10/08/13 11:50 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-02
 Client ID: RC-WC-100713-02
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 46%

Date Collected: 10/07/13 13:35
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 102 | Q | mg/kg | 0.154 | 0.019 | 5 | 10/07/13 20:00 | 10/08/13 11:51 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-03
Client ID: RC-WC-100713-03
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 40%

Date Collected: 10/07/13 13:40
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 240 | Q | mg/kg | 0.180 | 0.022 | 5 | 10/07/13 20:00 | 10/08/13 11:54 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-04
 Client ID: RC-WC-100713-04
 Sample Location: PLOW SHOP POND
 Matrix: Sediment
 Percent Solids: 51%

Date Collected: 10/07/13 13:45
 Date Received: 10/07/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 254 | Q | mg/kg | 0.142 | 0.018 | 5 | 10/07/13 20:00 | 10/08/13 11:55 | EPA 3050B | 1,6020A | LR |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG641886-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 10/07/13 20:00 | 10/08/13 11:49 | 1,6020A | LR |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG641886-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 101 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG641886-4 WG641886-5 QC Sample: L1319995-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 174. | 550 | 765 | 107 | | 742 | 103 | | 80-120 | 3 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1319993
Report Date: 10/08/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG641886-3 QC Sample: L1319995-01 Client ID: DUP Sample | | | | | | |
| Arsenic, Total | 174. | 170 | mg/kg | 2 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-01
Client ID: RC-WC-100713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:30
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 43.7 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 09:02 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-02
Client ID: RC-WC-100713-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:35
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 46.2 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 09:02 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-03
Client ID: RC-WC-100713-03
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:40
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 39.7 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 09:02 | 30,2540G | JW |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-04
Client ID: RC-WC-100713-04
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:45
Date Received: 10/07/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 51.0 | | % | 0.100 | 0.100 | 1 | - | 10/08/13 09:02 | 30,2540G | JW |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG641998-1 QC Sample: L1319993-01 Client ID: RC-WC-100713-01 | | | | | | |
| Solids, Total | 43.7 | 54.8 | % | 23 | Q | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1319993-01A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319993-02A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319993-03A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1319993-04A | Amber 120ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 29 of 32 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1



Project Information

Westborough, MA Mansfield, MA
TEL: 508-898-9220 TEL: 508-822-9300
FAX: 508-898-9193 FAX: 508-822-3288

Project Name: Devens

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

Fax: 413-540-0656

☐ Standard☒ Rush (ONLY IF PRE-APPROVED)

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Due Date: 10/8/13 Time: 24 hr

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 10/7/13

ALPHA Job #: L1319993

Report Information Data Deliverables

☐ FAX☒ EMAIL☒ Same as Client info

PO #:

☒ ADEx☐ Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes☒ No

Are MCP Analytical Methods Required?

☐ Yes☒ No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As 46020

SAMPLE HANDLING

Filtration

☐ Done☐ Not Needed☐ Lab to do☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID
(Lab Use Only)

Sample ID

Collection

Date

Time

Sample
MatrixSampler's
Initials

| | | | | | |
|----------|-----------------|---------|-------|-----|---------|
| 19993-01 | RC-WC-100713-01 | 10/7/13 | 13:30 | sed | WJB/EEF |
| -02 | RC-WC-100713-02 | ↓ | 13:35 | ↓ | ↓ |
| -03 | RC-WC-100713-03 | ↓ | 13:40 | ↓ | ↓ |
| -04 | RC-WC-100713-04 | ↓ | 13:45 | ↓ | ↓ |

PLEASE ANSWER QUESTIONS ABOVE!

Container Type

Preservative

IS YOUR PROJECT
MA MCP or CT RCP?

FORM NO: 01-01(1)
(rev. 5-JAN-12)

Relinquished By:

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L1321820 |
| Client: | Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040 |
| ATTN: | Rachel Leary |
| Phone: | (413) 540-0650 |
| Project Name: | AC001.005 |
| Project Number: | AC001.005 |
| Report Date: | 10/31/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1321820-01 | RC-WC-102513-01 | DEVENS, MA | 10/25/13 10:30 |
| L1321820-02 | RC-WC-102513-02 | DEVENS, MA | 10/25/13 10:45 |

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

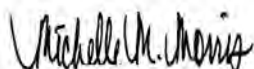
HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/31/13

METALS

Project Name: AC001.005

Lab Number: L1321820

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321820-01

Date Collected: 10/25/13 10:30

Client ID: RC-WC-102513-01

Date Received: 10/25/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 10/26/13 14:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 10/31/13 09:37 | 10/31/13 12:15 | EPA 3015 | 1,6010C | TT |



Project Name: AC001.005

Lab Number: L1321820

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321820-02

Date Collected: 10/25/13 10:45

Client ID: RC-WC-102513-02

Date Received: 10/25/13

Sample Location: DEVENS, MA

Field Prep: Not Specified

Matrix: Sediment

TCLP/SPLP Ext. Date: 10/26/13 14:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 10/31/13 09:37 | 10/31/13 12:29 | EPA 3015 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 10/31/13 09:37 | 10/31/13 12:29 | EPA 3015 | 1,6010C | TT |



Project Name: AC001.005

Lab Number: L1321820

Project Number: AC001.005

Report Date: 10/31/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG648374-1 | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 10/31/13 09:37 | 10/31/13 12:07 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 10/31/13 09:37 | 10/31/13 12:07 | 1,6010C | TT |

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 10/26/13 14:57



Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1321820

Report Date: 10/31/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG648374-2 | | | | | | | | |
| Arsenic, TCLP | 100 | | - | | 75-125 | - | | 20 |
| Chromium, TCLP | 95 | | - | | 75-125 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: AC001.005

Lab Number: L1321820

Project Number: AC001.005

Report Date: 10/31/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG648374-4 QC Sample: L1321820-01 Client ID: RC-WC-102513-01 | | | | | | | | | | | | |
| Arsenic, TCLP | ND | 1.2 | 1.2 | 100 | | - | - | | 75-125 | - | | 20 |
| Chromium, TCLP | ND | 2 | 1.9 | 95 | | - | - | | 75-125 | - | | 20 |

Lab Duplicate Analysis Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1321820

Report Date: 10/31/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG648374-3 QC Sample: L1321820-01 Client ID: RC-WC-102513-01 | | | | | | |
| Chromium, TCLP | ND | ND | mg/l | NC | | 20 |

Project Name: AC001.005

Lab Number: L1321820

Project Number: AC001.005

Report Date: 10/31/13

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A

Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|----------------------------------|--------|----|---------------|------|--------|-----------------------|
| L1321820-01X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.3 | Y | Absent | CR-CI(180) |
| L1321820-02X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.3 | Y | Absent | AS-CI(180),CR-CI(180) |

*Values in parentheses indicate holding time in days



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report



Project Name: AC001.005**Lab Number:** L1321820**Project Number:** AC001.005**Report Date:** 10/31/13**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: AC001.005**Lab Number:** L1321820**Project Number:** AC001.005**Report Date:** 10/31/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L1321600 |
| Client: | Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040 |
| ATTN: | Rachel Leary |
| Phone: | (413) 540-0650 |
| Project Name: | AC001.005 |
| Project Number: | AC001.005 |
| Report Date: | 10/29/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321600
Report Date: 10/29/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|-------------------|----------------------------|---------------------------------|
| L1321600-01 | SA71-WC-102513-01 | DEVENS, MA | 10/25/13 10:15 |

Project Name: AC001.005**Lab Number:** L1321600**Project Number:** AC001.005**Report Date:** 10/29/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 10/29/13

INORGANICS & MISCELLANEOUS

Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1321600**Report Date:** 10/29/13**SAMPLE RESULTS**

Lab ID: L1321600-01
Client ID: SA71-WC-102513-01
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 10/25/13 10:15
Date Received: 10/25/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 10/28/13 23:51 | 1,1030 | TL |



Project Name: AC001.005

Lab Number: L1321600

Project Number: AC001.005

Report Date: 10/29/13

SAMPLE RESULTS

Lab ID: L1321600-01
 Client ID: SA71-WC-102513-01
 Sample Location: DEVENS, MA
 Matrix: Sediment

Date Collected: 10/25/13 10:15
 Date Received: 10/25/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 86.7 | | % | 0.100 | NA | 1 | - | 10/28/13 10:19 | 30,2540G | MO |
| pH (H) | 7.8 | | SU | - | NA | 1 | - | 10/26/13 01:52 | 1,9045D | EL |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/28/13 20:05 | 10/28/13 22:35 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/28/13 20:05 | 10/28/13 22:20 | 1,7.3 | TL |



Project Name: AC001.005

Lab Number: L1321600

Project Number: AC001.005

Report Date: 10/29/13

Method Blank Analysis

Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG647628-1 | | | | | | | | | | |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/28/13 20:05 | 10/28/13 22:31 | 1,7.3 | TL |
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG647629-1 | | | | | | | | | | |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/28/13 20:05 | 10/28/13 22:16 | 1,7.3 | TL |

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1321600

Report Date: 10/29/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG647174-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG647628-2 | | | | | | | | |
| Cyanide, Reactive | 45 | | - | | 30-125 | - | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG647629-2 | | | | | | | | |
| Sulfide, Reactive | 110 | | - | | 60-125 | - | | 40 |

Project Name: AC001.005
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1321600
Report Date: 10/29/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647174-2 QC Sample: L1321599-01 Client ID: DUP Sample | | | | | | |
| pH | 12.0 | 11.9 | SU | 1 | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647461-1 QC Sample: L1321526-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 90.1 | 90.5 | % | 0 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647628-3 QC Sample: L1321600-01 Client ID: SA71-WC-102513-01 | | | | | | |
| Cyanide, Reactive | ND | ND | mg/kg | NC | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647629-3 QC Sample: L1321600-01 Client ID: SA71-WC-102513-01 | | | | | | |
| Sulfide, Reactive | ND | ND | mg/kg | NC | | 40 |

Project Name: AC001.005

Lab Number: L1321600

Project Number: AC001.005

Report Date: 10/29/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|--|
| L1321600-01A | Amber 250ml unpreserved | A | N/A | 3.0 | Y | Absent | IGNIT- 1030(14),REACTS(14),TS(7),PH- 9045(1),REACTCN(14) |
| L1321600-01B | Amber 120ml unpreserved | A | N/A | 3.0 | Y | Absent | IGNIT- 1030(14),REACTS(14),TS(7),PH- 9045(1),REACTCN(14) |

*Values in parentheses indicate holding time in days



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321600
Report Date: 10/29/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report



Project Name: AC001.005**Lab Number:** L1321600**Project Number:** AC001.005**Report Date:** 10/29/13**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: AC001.005**Lab Number:** L1321600**Project Number:** AC001.005**Report Date:** 10/29/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisison on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L1321884 |
| Client: | Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040 |
| ATTN: | Rachel Leary |
| Phone: | (413) 540-0650 |
| Project Name: | DEVENS-AC001.005 |
| Project Number: | AC001.005 |
| Report Date: | 11/04/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321884
Report Date: 11/04/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1321884-01 | RC-WC-102913-01 | RED COVE | 10/29/13 10:00 |
| L1321884-02 | RC-WC-102913-02 | RED COVE | 10/29/13 10:10 |
| L1321884-03 | RC-WC-102913-03 | RED COVE | 10/29/13 10:20 |
| L1321884-04 | RC-WC-102913-04 | RED COVE | 10/29/13 10:30 |
| L1321884-05 | RC-WC-102913-05 | RED COVE | 10/29/13 10:40 |
| L1321884-06 | RC-WC-102913-06 | RED COVE | 10/29/13 10:50 |

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321884
Report Date: 11/04/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cynthia McQueen

Title: Technical Director/Representative

Date: 11/04/13

METALS

Project Name: DEVENS-AC001.005

Lab Number: L1321884

Project Number: AC001.005

Report Date: 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-01

Date Collected: 10/29/13 10:00

Client ID: RC-WC-102913-01

Date Received: 10/30/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Soil

TCLP/SPLP Ext. Date: 10/31/13 16:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:08 | EPA 3015 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:08 | EPA 3015 | 1,6010C | TT |
| Mercury, TCLP | ND | | mg/l | 0.0010 | -- | 1 | 11/01/13 12:15 | 11/01/13 19:16 | EPA 7470A | 1,7470A | DR |



Project Name: DEVENS-AC001.005

Lab Number: L1321884

Project Number: AC001.005

Report Date: 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-02

Date Collected: 10/29/13 10:10

Client ID: RC-WC-102913-02

Date Received: 10/30/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Soil

TCLP/SPLP Ext. Date: 10/31/13 16:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:12 | EPA 3015 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:12 | EPA 3015 | 1,6010C | TT |



Project Name: DEVENS-AC001.005**Lab Number:** L1321884**Project Number:** AC001.005**Report Date:** 11/04/13**SAMPLE RESULTS****Lab ID:** L1321884-03**Date Collected:** 10/29/13 10:20**Client ID:** RC-WC-102913-03**Date Received:** 10/30/13**Sample Location:** RED COVE**Field Prep:** Not Specified**Matrix:** Soil**TCLP/SPLP Ext. Date:** 10/31/13 16:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:16 | EPA 3015 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:16 | EPA 3015 | 1,6010C | TT |
| Mercury, TCLP | ND | | mg/l | 0.0010 | -- | 1 | 11/01/13 12:15 | 11/01/13 19:18 | EPA 7470A | 1,7470A | DR |



Project Name: DEVENS-AC001.005

Lab Number: L1321884

Project Number: AC001.005

Report Date: 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-04

Date Collected: 10/29/13 10:30

Client ID: RC-WC-102913-04

Date Received: 10/30/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Soil

TCLP/SPLP Ext. Date: 10/31/13 16:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:20 | EPA 3015 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:20 | EPA 3015 | 1,6010C | TT |
| Mercury, TCLP | ND | | mg/l | 0.0010 | -- | 1 | 11/01/13 12:15 | 11/01/13 19:20 | EPA 7470A | 1,7470A | DR |



Project Name: DEVENS-AC001.005

Lab Number: L1321884

Project Number: AC001.005

Report Date: 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-05

Date Collected: 10/29/13 10:40

Client ID: RC-WC-102913-05

Date Received: 10/30/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Soil

TCLP/SPLP Ext. Date: 10/31/13 16:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:23 | EPA 3015 | 1,6010C | TT |



Project Name: DEVENS-AC001.005**Lab Number:** L1321884**Project Number:** AC001.005**Report Date:** 11/04/13**SAMPLE RESULTS****Lab ID:** L1321884-06**Date Collected:** 10/29/13 10:50**Client ID:** RC-WC-102913-06**Date Received:** 10/30/13**Sample Location:** RED COVE**Field Prep:** Not Specified**Matrix:** Soil**TCLP/SPLP Ext. Date:** 10/31/13 16:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|--------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:27 | EPA 3015 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 11/01/13 13:08 | 11/01/13 21:27 | EPA 3015 | 1,6010C | TT |
| Mercury, TCLP | ND | | mg/l | 0.0010 | -- | 1 | 11/01/13 12:15 | 11/01/13 19:22 | EPA 7470A | 1,7470A | DR |



Project Name: DEVENS-AC001.005

Lab Number: L1321884

Project Number: AC001.005

Report Date: 11/04/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|--------|-----|--------------------|------------------|------------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01,03-04,06 Batch: WG648788-1 | | | | | | | | | | |
| Mercury, TCLP | ND | | mg/l | 0.0010 | -- | 1 | 11/01/13 12:15 | 11/01/13 19:12 | 1,7470A | DR |

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 10/31/13 16:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-06 Batch: WG648798-1 | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.0 | -- | 1 | 11/01/13 13:08 | 11/01/13 16:37 | 1,6010C | TT |
| Chromium, TCLP | ND | | mg/l | 0.20 | -- | 1 | 11/01/13 13:08 | 11/01/13 16:37 | 1,6010C | TT |

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 10/31/13 16:45



Lab Control Sample Analysis**Batch Quality Control****Project Name:** DEVENS-AC001.005**Project Number:** AC001.005**Lab Number:** L1321884**Report Date:** 11/04/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG648788-2 | | | | | | | | |
| Mercury, TCLP | 106 | | - | | 80-120 | - | | |
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-06 Batch: WG648798-2 | | | | | | | | |
| Arsenic, TCLP | 100 | | - | | 75-125 | - | | 20 |
| Chromium, TCLP | 100 | | - | | 75-125 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: DEVENS-AC001.005

Lab Number: L1321884

Project Number: AC001.005

Report Date: 11/04/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
|-----------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|

TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG648788-4 QC Sample: L1321971-01 Client ID: MS Sample

| | | | | | | | | | | | | |
|---------------|----|-------|--------|-----|--|---|---|--|--------|---|--|----|
| Mercury, TCLP | ND | 0.025 | 0.0256 | 102 | | - | - | | 70-130 | - | | 20 |
|---------------|----|-------|--------|-----|--|---|---|--|--------|---|--|----|

TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648798-4 QC Sample: L1321971-01 Client ID: MS Sample

| | | | | | | | | | | | | |
|---------------|----|-----|-----|-----|--|---|---|--|--------|---|--|----|
| Arsenic, TCLP | ND | 1.2 | 1.2 | 100 | | - | - | | 75-125 | - | | 20 |
|---------------|----|-----|-----|-----|--|---|---|--|--------|---|--|----|

| | | | | | | | | | | | | |
|----------------|----|---|-----|----|--|---|---|--|--------|---|--|----|
| Chromium, TCLP | ND | 2 | 1.9 | 95 | | - | - | | 75-125 | - | | 20 |
|----------------|----|---|-----|----|--|---|---|--|--------|---|--|----|

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1321884
Report Date: 11/04/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG648788-3 QC Sample: L1321971-01 Client ID: DUP Sample | | | | | | |
| Mercury, TCLP | ND | ND | mg/l | NC | | 20 |
| TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648798-3 QC Sample: L1321971-01 Client ID: DUP Sample | | | | | | |
| Arsenic, TCLP | ND | ND | mg/l | NC | | 20 |
| Chromium, TCLP | ND | ND | mg/l | NC | | 20 |

Project Name: DEVENS-AC001.005

Lab Number: L1321884

Project Number: AC001.005

Report Date: 11/04/13

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|----------------------------------|--------|-----|---------------|------|--------|------------------------------------|
| L1321884-01A | Amber 250ml unpreserved | A | N/A | 3.0 | Y | Absent | - |
| L1321884-01X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.0 | Y | Absent | AS-CI(180),HG-C(28),CR- CI(180) |
| L1321884-02A | Amber 250ml unpreserved | A | N/A | 3.0 | Y | Absent | - |
| L1321884-02X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.0 | Y | Absent | AS-CI(180),CR-CI(180) |
| L1321884-03A | Amber 250ml unpreserved | A | N/A | 3.0 | Y | Absent | - |
| L1321884-03X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.0 | Y | Absent | AS-CI(180),HG-C(28),CR- CI(180) |
| L1321884-04A | Amber 250ml unpreserved | A | N/A | 3.0 | Y | Absent | - |
| L1321884-04X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.0 | Y | Absent | AS-CI(180),HG-C(28),CR- CI(180) |
| L1321884-05A | Amber 250ml unpreserved | A | N/A | 3.0 | Y | Absent | - |
| L1321884-05X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.0 | Y | Absent | AS-CI(180) |
| L1321884-06A | Amber 250ml unpreserved | A | N/A | 3.0 | Y | Absent | - |
| L1321884-06X | Plastic 250ml HNO3 preserved spl | A | <2 | 3.0 | Y | Absent | AS-CI(180),HG-C(28),CR- CI(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321884
Report Date: 11/04/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report



Project Name: DEVENS-AC001.005**Lab Number:** L1321884**Project Number:** AC001.005**Report Date:** 11/04/13**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: DEVENS-AC001.005**Lab Number:** L1321884**Project Number:** AC001.005**Report Date:** 11/04/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

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Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisison on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



CHAIN OF CUSTODY

PAGE 1 OF 1

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-8300

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste 307
Holliston, MA 01040

Phone: 413-540-0650

Email: RLeary@Savcon.com

Additional Project Information:

Project Information

Project Name: Devens-AC001.005

Project Location: Red Cove

Project #: AC001.005

Project Manager: R. Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)Date Due: 24th 11/13
10/30/13

Date Rec'd in Lab

10/29/13

ALPHA Job #

13218011
1321777

Report Information - Data Deliverables

☒ ADEX ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

- ☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program Criteria

| ANALYSIS | | | | | | | | | | | | SAMPLE INFO |
|---|---|---|---|--|--|--|--|--|--|--|--|--|
| VOC: | SVOC: | METALS: | METALS: | EPH: | VPH: | PCB: | TPH: | Quant Only | Fingerprint | PH React | Flash | |
| <input type="checkbox"/> 8200 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2 | <input type="checkbox"/> ABN <input type="checkbox"/> PAH | <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 | <input type="checkbox"/> RORAS <input type="checkbox"/> RORAS | <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | <input type="checkbox"/> PCB <input type="checkbox"/> PEST | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do |
| <input type="checkbox"/> 8200 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2 | <input type="checkbox"/> ABN <input type="checkbox"/> PAH | <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 | <input type="checkbox"/> RORAS <input type="checkbox"/> RORAS | <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | <input type="checkbox"/> PCB <input type="checkbox"/> PEST | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | |

TOTAL # BOTTLES

| Sample ID | Collection | | Sample Matrix | Sampler Initials | VOC | SVOC | METALS | METALS | EPH | VPH | PCB | TPH | Quant Only | Fingerprint | PH React | Flash | TCLP | Hg | Sample Comments |
|-----------------|------------|-------|---------------|------------------|-----|------|--------|--------|-----|-----|-----|-----|------------|-------------|----------|-------|------|----|-------------------------|
| | Date | Time | | | | | | | | | | | | | | | | | |
| RC-WC-102913-01 | 10/29/13 | 10:00 | Soil | WJB | | | | | | | | | | | | | | | * Run TCLP if triggered |
| RC-WC-102913-02 | | 10:10 | | | | | | | | | | | | | | | | | |
| RC-WC-102913-03 | | 10:20 | | | | | | | | | | | | | | | | | |
| RC-WC-102913-04 | | 10:30 | | | | | | | | | | | | | | | | | |
| RC-WC-102913-05 | | 10:40 | | | | | | | | | | | | | | | | | |
| RC-WC-102913-06 | | 10:50 | | | | | | | | | | | | | | | | | |

Container Type
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 E= Encore
 D= BOD Bottle

Preservative
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

Container Type

Preservative

A A A
A A A

Relinquished By:

Date/Time

Received By:

Date/Time

All samples submitted are subject to
 Alpha's Terms and Conditions
 See reverse side

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L1321771 |
| Client: | Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040 |
| ATTN: | Rachel Leary |
| Phone: | (413) 540-0650 |
| Project Name: | DEVENS-AC001.005 |
| Project Number: | AC001.005 |
| Report Date: | 10/31/13 |

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1321771-01 | RC-WC-102913-01 | RED COVE | 10/29/13 10:00 |
| L1321771-02 | RC-WC-102913-02 | RED COVE | 10/29/13 10:10 |
| L1321771-03 | RC-WC-102913-03 | RED COVE | 10/29/13 10:20 |
| L1321771-04 | RC-WC-102913-04 | RED COVE | 10/29/13 10:30 |
| L1321771-05 | RC-WC-102913-05 | RED COVE | 10/29/13 10:40 |
| L1321771-06 | RC-WC-102913-06 | RED COVE | 10/29/13 10:50 |

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13


Case Narrative (continued)

Metals

The WG647886-4 MS recoveries for arsenic (0%) and chromium (0%), performed on L1321771-01, do not apply because the sample concentrations are greater than four times the spike amount added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/31/13

ORGANICS

PCBS

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-01
Client ID: RC-WC-102913-01
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 10/30/13 14:31
Analyst: JT
Percent Solids: 40%

Date Collected: 10/29/13 10:00
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 18:27
Cleanup Method1: EPA 3665A
Cleanup Date1: 10/30/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| PCB by GC - Westborough Lab | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 82.0 | -- | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 82.0 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 58 | | 30-150 | A |
| Decachlorobiphenyl | 63 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 69 | | 30-150 | B |
| Decachlorobiphenyl | 86 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-02
Client ID: RC-WC-102913-02
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 10/30/13 14:43
Analyst: JT
Percent Solids: 72%

Date Collected: 10/29/13 10:10
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 18:27
Cleanup Method1: EPA 3665A
Cleanup Date1: 10/30/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| PCB by GC - Westborough Lab | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 46.0 | -- | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 46.0 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 65 | | 30-150 | A |
| Decachlorobiphenyl | 59 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 70 | | 30-150 | B |
| Decachlorobiphenyl | 71 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-03
Client ID: RC-WC-102913-03
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 10/30/13 14:56
Analyst: JT
Percent Solids: 35%

Date Collected: 10/29/13 10:20
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 18:27
Cleanup Method1: EPA 3665A
Cleanup Date1: 10/30/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| PCB by GC - Westborough Lab | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 93.4 | -- | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 93.4 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 47 | | 30-150 | A |
| Decachlorobiphenyl | 47 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 59 | | 30-150 | B |
| Decachlorobiphenyl | 64 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-04
Client ID: RC-WC-102913-04
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 10/30/13 15:08
Analyst: JT
Percent Solids: 43%

Date Collected: 10/29/13 10:30
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 18:27
Cleanup Method1: EPA 3665A
Cleanup Date1: 10/30/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| PCB by GC - Westborough Lab | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 74.8 | -- | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 74.8 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 58 | | 30-150 | A |
| Decachlorobiphenyl | 58 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 68 | | 30-150 | B |
| Decachlorobiphenyl | 76 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-05
Client ID: RC-WC-102913-05
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 10/30/13 15:20
Analyst: JT
Percent Solids: 61%

Date Collected: 10/29/13 10:40
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 18:27
Cleanup Method1: EPA 3665A
Cleanup Date1: 10/30/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| PCB by GC - Westborough Lab | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 53.1 | -- | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 53.1 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 65 | | 30-150 | A |
| Decachlorobiphenyl | 65 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 30-150 | B |
| Decachlorobiphenyl | 81 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-06
Client ID: RC-WC-102913-06
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8082A
Analytical Date: 10/30/13 15:32
Analyst: JT
Percent Solids: 46%

Date Collected: 10/29/13 10:50
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 18:27
Cleanup Method1: EPA 3665A
Cleanup Date1: 10/30/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| PCB by GC - Westborough Lab | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 71.3 | -- | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 71.3 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 59 | | 30-150 | A |
| Decachlorobiphenyl | 63 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 67 | | 30-150 | B |
| Decachlorobiphenyl | 78 | | 30-150 | B |

Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 10/30/13 15:45
 Analyst: JT

Extraction Method: EPA 3546
 Extraction Date: 10/29/13 18:27
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 10/30/13
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|--|--------|-----------|-------|------|-----|--------|
| PCB by GC - Westborough Lab for sample(s): 01-06 Batch: WG647929-1 | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1221 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1232 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1242 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1248 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1254 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1260 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1262 | ND | | ug/kg | 32.2 | -- | A |
| Aroclor 1268 | ND | | ug/kg | 32.2 | -- | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|-----------|-----------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 77 | | 30-150 | A |
| Decachlorobiphenyl | 73 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 87 | | 30-150 | B |
| Decachlorobiphenyl | 90 | | 30-150 | B |

Lab Control Sample Analysis**Batch Quality Control****Project Name:** DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|--|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|---------------|
| PCB by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647929-2 WG647929-3 | | | | | | | | | |
| Aroclor 1016 | 75 | | 69 | | 40-140 | 8 | | 50 | A |
| Aroclor 1260 | 74 | | 70 | | 40-140 | 6 | | 50 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|------------------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|---------------|
| 2,4,5,6-Tetrachloro-m-xylene | 71 | | 61 | | 30-150 | A |
| Decachlorobiphenyl | 71 | | 62 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 71 | | 61 | | 30-150 | B |
| Decachlorobiphenyl | 80 | | 73 | | 30-150 | B |

PESTICIDES

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-01
Client ID: RC-WC-102913-01
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 10/30/13 15:45
Analyst: SH
Percent Solids: 40%

Date Collected: 10/29/13 10:00
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 17:11
Cleanup Method1: EPA 3620B
Cleanup Date1: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| Pesticides by GC - Westborough Lab | | | | | | | |
| Delta-BHC | ND | | ug/kg | 19.5 | -- | 1 | A |
| Lindane | ND | | ug/kg | 8.14 | -- | 1 | A |
| Alpha-BHC | ND | | ug/kg | 8.14 | -- | 1 | A |
| Beta-BHC | ND | | ug/kg | 19.5 | -- | 1 | A |
| Heptachlor | ND | | ug/kg | 9.76 | -- | 1 | A |
| Aldrin | ND | | ug/kg | 19.5 | -- | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 36.6 | -- | 1 | A |
| Endrin | ND | | ug/kg | 8.14 | -- | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 24.4 | -- | 1 | A |
| Endrin ketone | ND | | ug/kg | 19.5 | -- | 1 | A |
| Dieldrin | ND | | ug/kg | 12.2 | -- | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 19.5 | -- | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 19.5 | -- | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 36.6 | -- | 1 | A |
| Endosulfan I | ND | | ug/kg | 19.5 | -- | 1 | A |
| Endosulfan II | ND | | ug/kg | 19.5 | -- | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 8.14 | -- | 1 | A |
| Methoxychlor | ND | | ug/kg | 36.6 | -- | 1 | A |
| Toxaphene | ND | | ug/kg | 366 | -- | 1 | A |
| Chlordane | ND | | ug/kg | 159 | -- | 1 | A |
| cis-Chlordane | ND | | ug/kg | 24.4 | -- | 1 | A |
| trans-Chlordane | ND | | ug/kg | 24.4 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 108 | | 30-150 | A |
| Decachlorobiphenyl | 95 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 75 | | 30-150 | B |
| Decachlorobiphenyl | 101 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-01
Client ID: RC-WC-102913-01
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 10/31/13 10:32
Analyst: SH
Percent Solids: 40%

Date Collected: 10/29/13 10:00
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 10/30/13 01:13
Methylation Date: 10/30/13 19:54

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|--|--------|-----------|-------|-------|-----|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | | |
| MCPP | ND | | mg/kg | 8.10 | -- | 1 | A |
| MCPA | ND | | mg/kg | 8.10 | -- | 1 | A |
| Dalapon | ND | | mg/kg | 0.081 | -- | 1 | A |
| Dicamba | ND | | mg/kg | 0.081 | -- | 1 | A |
| Dichloroprop | ND | | mg/kg | 0.081 | -- | 1 | A |
| 2,4-D | ND | | mg/kg | 0.405 | -- | 1 | A |
| 2,4-DB | ND | | mg/kg | 0.405 | -- | 1 | A |
| 2,4,5-T | ND | | mg/kg | 0.405 | -- | 1 | A |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.405 | -- | 1 | A |
| Dinoseb | ND | | mg/kg | 0.081 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 144 | | 30-150 | A |
| DCAA | 31 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-02
Client ID: RC-WC-102913-02
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 10/30/13 15:58
Analyst: SH
Percent Solids: 72%

Date Collected: 10/29/13 10:10
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 17:11
Cleanup Method1: EPA 3620B
Cleanup Date1: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| Pesticides by GC - Westborough Lab | | | | | | | |
| Delta-BHC | ND | | ug/kg | 11.0 | -- | 1 | A |
| Lindane | ND | | ug/kg | 4.60 | -- | 1 | A |
| Alpha-BHC | ND | | ug/kg | 4.60 | -- | 1 | A |
| Beta-BHC | ND | | ug/kg | 11.0 | -- | 1 | A |
| Heptachlor | ND | | ug/kg | 5.52 | -- | 1 | A |
| Aldrin | ND | | ug/kg | 11.0 | -- | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 20.7 | -- | 1 | A |
| Endrin | ND | | ug/kg | 4.60 | -- | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 13.8 | -- | 1 | A |
| Endrin ketone | ND | | ug/kg | 11.0 | -- | 1 | A |
| Dieldrin | ND | | ug/kg | 6.90 | -- | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 11.0 | -- | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 11.0 | -- | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 20.7 | -- | 1 | A |
| Endosulfan I | ND | | ug/kg | 11.0 | -- | 1 | A |
| Endosulfan II | ND | | ug/kg | 11.0 | -- | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 4.60 | -- | 1 | A |
| Methoxychlor | ND | | ug/kg | 20.7 | -- | 1 | A |
| Toxaphene | ND | | ug/kg | 207 | -- | 1 | A |
| Chlordane | ND | | ug/kg | 89.8 | -- | 1 | A |
| cis-Chlordane | ND | | ug/kg | 13.8 | -- | 1 | A |
| trans-Chlordane | ND | | ug/kg | 13.8 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 100 | | 30-150 | A |
| Decachlorobiphenyl | 79 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 67 | | 30-150 | B |
| Decachlorobiphenyl | 91 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-02
Client ID: RC-WC-102913-02
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 10/31/13 10:52
Analyst: SH
Percent Solids: 72%

Date Collected: 10/29/13 10:10
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 10/30/13 01:13
Methylation Date: 10/30/13 19:54

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|--|--------|-----------|-------|-------|-----|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | | |
| MCPP | ND | | mg/kg | 4.63 | -- | 1 | A |
| MCPA | ND | | mg/kg | 4.63 | -- | 1 | A |
| Dalapon | ND | | mg/kg | 0.046 | -- | 1 | A |
| Dicamba | ND | | mg/kg | 0.046 | -- | 1 | A |
| Dichloroprop | ND | | mg/kg | 0.046 | -- | 1 | A |
| 2,4-D | ND | | mg/kg | 0.231 | -- | 1 | A |
| 2,4-DB | ND | | mg/kg | 0.231 | -- | 1 | A |
| 2,4,5-T | ND | | mg/kg | 0.231 | -- | 1 | A |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.231 | -- | 1 | A |
| Dinoseb | ND | | mg/kg | 0.046 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 112 | | 30-150 | A |
| DCAA | 72 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-03
Client ID: RC-WC-102913-03
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 10/30/13 16:10
Analyst: SH
Percent Solids: 35%

Date Collected: 10/29/13 10:20
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 17:11
Cleanup Method1: EPA 3620B
Cleanup Date1: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| Pesticides by GC - Westborough Lab | | | | | | | |
| Delta-BHC | ND | | ug/kg | 21.8 | -- | 1 | A |
| Lindane | ND | | ug/kg | 9.07 | -- | 1 | A |
| Alpha-BHC | ND | | ug/kg | 9.07 | -- | 1 | A |
| Beta-BHC | ND | | ug/kg | 21.8 | -- | 1 | A |
| Heptachlor | ND | | ug/kg | 10.9 | -- | 1 | A |
| Aldrin | ND | | ug/kg | 21.8 | -- | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 40.8 | -- | 1 | A |
| Endrin | ND | | ug/kg | 9.07 | -- | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 27.2 | -- | 1 | A |
| Endrin ketone | ND | | ug/kg | 21.8 | -- | 1 | A |
| Dieldrin | ND | | ug/kg | 13.6 | -- | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 21.8 | -- | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 21.8 | -- | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 40.8 | -- | 1 | A |
| Endosulfan I | ND | | ug/kg | 21.8 | -- | 1 | A |
| Endosulfan II | ND | | ug/kg | 21.8 | -- | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 9.07 | -- | 1 | A |
| Methoxychlor | ND | | ug/kg | 40.8 | -- | 1 | A |
| Toxaphene | ND | | ug/kg | 408 | -- | 1 | A |
| Chlordane | ND | | ug/kg | 177 | -- | 1 | A |
| cis-Chlordane | ND | | ug/kg | 27.2 | -- | 1 | A |
| trans-Chlordane | ND | | ug/kg | 27.2 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 94 | | 30-150 | A |
| Decachlorobiphenyl | 73 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 71 | | 30-150 | B |
| Decachlorobiphenyl | 96 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-03
Client ID: RC-WC-102913-03
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 10/31/13 11:12
Analyst: SH
Percent Solids: 35%

Date Collected: 10/29/13 10:20
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 10/30/13 01:13
Methylation Date: 10/30/13 19:54

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|--|--------|-----------|-------|-------|-----|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | | |
| MCPPP | ND | | mg/kg | 9.37 | -- | 1 | A |
| MCPA | ND | | mg/kg | 9.37 | -- | 1 | A |
| Dalapon | ND | | mg/kg | 0.094 | -- | 1 | A |
| Dicamba | ND | | mg/kg | 0.094 | -- | 1 | A |
| Dichloroprop | ND | | mg/kg | 0.094 | -- | 1 | A |
| 2,4-D | ND | | mg/kg | 0.469 | -- | 1 | A |
| 2,4-DB | ND | | mg/kg | 0.469 | -- | 1 | A |
| 2,4,5-T | ND | | mg/kg | 0.469 | -- | 1 | A |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.469 | -- | 1 | A |
| Dinoseb | ND | | mg/kg | 0.094 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 138 | | 30-150 | A |
| DCAA | 100 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-04
Client ID: RC-WC-102913-04
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 10/30/13 16:23
Analyst: SH
Percent Solids: 43%

Date Collected: 10/29/13 10:30
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 17:11
Cleanup Method1: EPA 3620B
Cleanup Date1: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| Pesticides by GC - Westborough Lab | | | | | | | |
| Delta-BHC | ND | | ug/kg | 17.8 | -- | 1 | A |
| Lindane | ND | | ug/kg | 7.44 | -- | 1 | A |
| Alpha-BHC | ND | | ug/kg | 7.44 | -- | 1 | A |
| Beta-BHC | ND | | ug/kg | 17.8 | -- | 1 | A |
| Heptachlor | ND | | ug/kg | 8.93 | -- | 1 | A |
| Aldrin | ND | | ug/kg | 17.8 | -- | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 33.5 | -- | 1 | A |
| Endrin | ND | | ug/kg | 7.44 | -- | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 22.3 | -- | 1 | A |
| Endrin ketone | ND | | ug/kg | 17.8 | -- | 1 | A |
| Dieldrin | ND | | ug/kg | 11.2 | -- | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 17.8 | -- | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 17.8 | -- | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 33.5 | -- | 1 | A |
| Endosulfan I | ND | | ug/kg | 17.8 | -- | 1 | A |
| Endosulfan II | ND | | ug/kg | 17.8 | -- | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 7.44 | -- | 1 | A |
| Methoxychlor | ND | | ug/kg | 33.5 | -- | 1 | A |
| Toxaphene | ND | | ug/kg | 335 | -- | 1 | A |
| Chlordane | ND | | ug/kg | 145 | -- | 1 | A |
| cis-Chlordane | ND | | ug/kg | 22.3 | -- | 1 | A |
| trans-Chlordane | ND | | ug/kg | 22.3 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 124 | | 30-150 | A |
| Decachlorobiphenyl | 81 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 77 | | 30-150 | B |
| Decachlorobiphenyl | 96 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-04
Client ID: RC-WC-102913-04
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 10/31/13 11:32
Analyst: SH
Percent Solids: 43%

Date Collected: 10/29/13 10:30
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 10/30/13 01:13
Methylation Date: 10/30/13 19:54

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|--|--------|-----------|-------|-------|-----|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | | |
| MCPPP | ND | | mg/kg | 7.71 | -- | 1 | A |
| MCPA | ND | | mg/kg | 7.71 | -- | 1 | A |
| Dalapon | ND | | mg/kg | 0.077 | -- | 1 | A |
| Dicamba | ND | | mg/kg | 0.077 | -- | 1 | A |
| Dichloroprop | ND | | mg/kg | 0.077 | -- | 1 | A |
| 2,4-D | ND | | mg/kg | 0.386 | -- | 1 | A |
| 2,4-DB | ND | | mg/kg | 0.386 | -- | 1 | A |
| 2,4,5-T | ND | | mg/kg | 0.386 | -- | 1 | A |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.386 | -- | 1 | A |
| Dinoseb | ND | | mg/kg | 0.077 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 116 | | 30-150 | A |
| DCAA | 91 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-05
Client ID: RC-WC-102913-05
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 10/30/13 16:36
Analyst: SH
Percent Solids: 61%

Date Collected: 10/29/13 10:40
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 17:11
Cleanup Method1: EPA 3620B
Cleanup Date1: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| Pesticides by GC - Westborough Lab | | | | | | | |
| Delta-BHC | ND | | ug/kg | 12.3 | -- | 1 | A |
| Lindane | ND | | ug/kg | 5.13 | -- | 1 | A |
| Alpha-BHC | ND | | ug/kg | 5.13 | -- | 1 | A |
| Beta-BHC | ND | | ug/kg | 12.3 | -- | 1 | A |
| Heptachlor | ND | | ug/kg | 6.16 | -- | 1 | A |
| Aldrin | ND | | ug/kg | 12.3 | -- | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 23.1 | -- | 1 | A |
| Endrin | ND | | ug/kg | 5.13 | -- | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 15.4 | -- | 1 | A |
| Endrin ketone | ND | | ug/kg | 12.3 | -- | 1 | A |
| Dieldrin | ND | | ug/kg | 7.70 | -- | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 12.3 | -- | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 12.3 | -- | 1 | B |
| 4,4'-DDT | ND | | ug/kg | 23.1 | -- | 1 | A |
| Endosulfan I | ND | | ug/kg | 12.3 | -- | 1 | A |
| Endosulfan II | ND | | ug/kg | 12.3 | -- | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 5.13 | -- | 1 | A |
| Methoxychlor | ND | | ug/kg | 23.1 | -- | 1 | A |
| Toxaphene | ND | | ug/kg | 231 | -- | 1 | A |
| Chlordane | ND | | ug/kg | 100 | -- | 1 | A |
| cis-Chlordane | ND | | ug/kg | 15.4 | -- | 1 | A |
| trans-Chlordane | ND | | ug/kg | 15.4 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 193 | Q | 30-150 | A |
| Decachlorobiphenyl | 94 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 81 | | 30-150 | B |
| Decachlorobiphenyl | 103 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-05
Client ID: RC-WC-102913-05
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 10/31/13 11:52
Analyst: SH
Percent Solids: 61%

Date Collected: 10/29/13 10:40
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 10/30/13 01:13
Methylation Date: 10/30/13 19:54

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|--|--------|-----------|-------|-------|-----|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | | |
| MCPPP | ND | | mg/kg | 5.34 | -- | 1 | A |
| MCPA | ND | | mg/kg | 5.34 | -- | 1 | A |
| Dalapon | ND | | mg/kg | 0.053 | -- | 1 | A |
| Dicamba | ND | | mg/kg | 0.053 | -- | 1 | A |
| Dichloroprop | ND | | mg/kg | 0.053 | -- | 1 | A |
| 2,4-D | ND | | mg/kg | 0.267 | -- | 1 | A |
| 2,4-DB | ND | | mg/kg | 0.267 | -- | 1 | A |
| 2,4,5-T | ND | | mg/kg | 0.267 | -- | 1 | A |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.267 | -- | 1 | A |
| Dinoseb | ND | | mg/kg | 0.053 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 135 | | 30-150 | A |
| DCAA | 112 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-06
Client ID: RC-WC-102913-06
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8081B
Analytical Date: 10/30/13 16:49
Analyst: SH
Percent Solids: 46%

Date Collected: 10/29/13 10:50
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 10/29/13 17:11
Cleanup Method1: EPA 3620B
Cleanup Date1: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|------------------------------------|--------|-----------|-------|------|-----|-----------------|--------|
| Pesticides by GC - Westborough Lab | | | | | | | |
| Delta-BHC | ND | | ug/kg | 17.2 | -- | 1 | A |
| Lindane | ND | | ug/kg | 7.17 | -- | 1 | A |
| Alpha-BHC | ND | | ug/kg | 7.17 | -- | 1 | A |
| Beta-BHC | ND | | ug/kg | 17.2 | -- | 1 | A |
| Heptachlor | ND | | ug/kg | 8.60 | -- | 1 | A |
| Aldrin | ND | | ug/kg | 17.2 | -- | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 32.2 | -- | 1 | A |
| Endrin | ND | | ug/kg | 7.17 | -- | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 21.5 | -- | 1 | A |
| Endrin ketone | ND | | ug/kg | 17.2 | -- | 1 | A |
| Dieldrin | ND | | ug/kg | 10.7 | -- | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 17.2 | -- | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 17.2 | -- | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 32.2 | -- | 1 | A |
| Endosulfan I | ND | | ug/kg | 17.2 | -- | 1 | A |
| Endosulfan II | ND | | ug/kg | 17.2 | -- | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 7.17 | -- | 1 | A |
| Methoxychlor | ND | | ug/kg | 32.2 | -- | 1 | A |
| Toxaphene | ND | | ug/kg | 322 | -- | 1 | A |
| Chlordane | ND | | ug/kg | 140 | -- | 1 | A |
| cis-Chlordane | ND | | ug/kg | 21.5 | -- | 1 | A |
| trans-Chlordane | ND | | ug/kg | 21.5 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 162 | Q | 30-150 | A |
| Decachlorobiphenyl | 66 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 63 | | 30-150 | B |
| Decachlorobiphenyl | 80 | | 30-150 | B |

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**SAMPLE RESULTS**

Lab ID: L1321771-06
Client ID: RC-WC-102913-06
Sample Location: RED COVE
Matrix: Sediment
Analytical Method: 1,8151A(M)
Analytical Date: 10/31/13 12:12
Analyst: SH
Percent Solids: 46%

Date Collected: 10/29/13 10:50
Date Received: 10/29/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 10/30/13 01:13
Methylation Date: 10/30/13 19:54

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|--|--------|-----------|-------|-------|-----|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab | | | | | | | |
| MCPPP | ND | | mg/kg | 7.24 | -- | 1 | A |
| MCPA | ND | | mg/kg | 7.24 | -- | 1 | A |
| Dalapon | ND | | mg/kg | 0.072 | -- | 1 | A |
| Dicamba | ND | | mg/kg | 0.072 | -- | 1 | A |
| Dichloroprop | ND | | mg/kg | 0.072 | -- | 1 | A |
| 2,4-D | ND | | mg/kg | 0.362 | -- | 1 | A |
| 2,4-DB | ND | | mg/kg | 0.362 | -- | 1 | A |
| 2,4,5-T | ND | | mg/kg | 0.362 | -- | 1 | A |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.362 | -- | 1 | A |
| Dinoseb | ND | | mg/kg | 0.072 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA | 209 | Q | 30-150 | A |
| DCAA | 103 | | 30-150 | B |

Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 10/30/13 15:32
 Analyst: SH

Extraction Method: EPA 3546
 Extraction Date: 10/29/13 17:11
 Cleanup Method1: EPA 3620B
 Cleanup Date1: 10/30/13

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|--------|-----------|-------|------|-----|--------|
| Pesticides by GC - Westborough Lab for sample(s): 01-06 Batch: WG647928-1 | | | | | | |
| Delta-BHC | ND | | ug/kg | 7.90 | -- | A |
| Lindane | ND | | ug/kg | 3.29 | -- | A |
| Alpha-BHC | ND | | ug/kg | 3.29 | -- | A |
| Beta-BHC | ND | | ug/kg | 7.90 | -- | A |
| Heptachlor | ND | | ug/kg | 3.95 | -- | A |
| Aldrin | ND | | ug/kg | 7.90 | -- | A |
| Heptachlor epoxide | ND | | ug/kg | 14.8 | -- | A |
| Endrin | ND | | ug/kg | 3.29 | -- | A |
| Endrin aldehyde | ND | | ug/kg | 9.87 | -- | A |
| Endrin ketone | ND | | ug/kg | 7.90 | -- | A |
| Dieldrin | ND | | ug/kg | 4.94 | -- | A |
| 4,4'-DDE | ND | | ug/kg | 7.90 | -- | A |
| 4,4'-DDD | ND | | ug/kg | 7.90 | -- | A |
| 4,4'-DDT | ND | | ug/kg | 14.8 | -- | A |
| Endosulfan I | ND | | ug/kg | 7.90 | -- | A |
| Endosulfan II | ND | | ug/kg | 7.90 | -- | A |
| Endosulfan sulfate | ND | | ug/kg | 3.29 | -- | A |
| Methoxychlor | ND | | ug/kg | 14.8 | -- | A |
| Toxaphene | ND | | ug/kg | 148 | -- | A |
| Chlordane | ND | | ug/kg | 64.2 | -- | A |
| cis-Chlordane | ND | | ug/kg | 9.87 | -- | A |
| trans-Chlordane | ND | | ug/kg | 9.87 | -- | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|-----------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 75 | | 30-150 | A |
| Decachlorobiphenyl | 93 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 71 | | 30-150 | B |
| Decachlorobiphenyl | 97 | | 30-150 | B |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A(M)
 Analytical Date: 10/31/13 09:13
 Analyst: SH

Extraction Method: EPA 8151A
 Extraction Date: 10/30/13 01:13

Methylation Date: 10/30/13 19:54

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|--------|-----------|-------|-------|-----|--------|
| Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-06 Batch: WG647974-1 | | | | | | |
| MCPPP | ND | | mg/kg | 3.31 | -- | A |
| MCPA | ND | | mg/kg | 3.31 | -- | A |
| Dalapon | ND | | mg/kg | 0.033 | -- | A |
| Dicamba | ND | | mg/kg | 0.033 | -- | A |
| Dichloroprop | ND | | mg/kg | 0.033 | -- | A |
| 2,4-D | ND | | mg/kg | 0.166 | -- | A |
| 2,4-DB | ND | | mg/kg | 0.166 | -- | A |
| 2,4,5-T | ND | | mg/kg | 0.166 | -- | A |
| 2,4,5-TP (Silvex) | ND | | mg/kg | 0.166 | -- | A |
| Dinoseb | ND | | mg/kg | 0.033 | -- | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|-----------|-----------|------------------------|--------|
| DCAA | 86 | | 30-150 | A |
| DCAA | 97 | | 30-150 | B |

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|---------------|
| Pesticides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647928-2 WG647928-3 | | | | | | | | | |
| Delta-BHC | 86 | | 102 | | 30-150 | 17 | | 30 | A |
| Lindane | 91 | | 106 | | 30-150 | 15 | | 30 | A |
| Alpha-BHC | 90 | | 102 | | 30-150 | 13 | | 30 | A |
| Beta-BHC | 85 | | 99 | | 30-150 | 15 | | 30 | A |
| Heptachlor | 90 | | 108 | | 30-150 | 18 | | 30 | A |
| Aldrin | 90 | | 106 | | 30-150 | 16 | | 30 | A |
| Heptachlor epoxide | 82 | | 99 | | 30-150 | 19 | | 30 | A |
| Endrin | 86 | | 104 | | 30-150 | 19 | | 30 | A |
| Endrin aldehyde | 66 | | 87 | | 30-150 | 27 | | 30 | A |
| Endrin ketone | 73 | | 91 | | 30-150 | 22 | | 30 | A |
| Dieldrin | 89 | | 106 | | 30-150 | 17 | | 30 | A |
| 4,4'-DDE | 83 | | 101 | | 30-150 | 20 | | 30 | A |
| 4,4'-DDD | 85 | | 104 | | 30-150 | 20 | | 30 | A |
| 4,4'-DDT | 88 | | 108 | | 30-150 | 20 | | 30 | A |
| Endosulfan I | 86 | | 102 | | 30-150 | 17 | | 30 | A |
| Endosulfan II | 79 | | 96 | | 30-150 | 19 | | 30 | A |
| Endosulfan sulfate | 70 | | 88 | | 30-150 | 23 | | 30 | A |
| Methoxychlor | 89 | | 112 | | 30-150 | 23 | | 30 | A |
| cis-Chlordane | 98 | | 117 | | 30-150 | 18 | | 30 | A |
| trans-Chlordane | 86 | | 105 | | 30-150 | 20 | | 30 | A |

Lab Control Sample Analysis**Batch Quality Control****Project Name:** DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Pesticides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647928-2 WG647928-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|------------------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|---------------|
| 2,4,5,6-Tetrachloro-m-xylene | 80 | | 88 | | 30-150 | A |
| Decachlorobiphenyl | 97 | | 112 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 80 | | 30-150 | B |
| Decachlorobiphenyl | 104 | | 112 | | 30-150 | B |

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647974-2 WG647974-3 | | | | | | | | | |
| MCPP | 104 | | 97 | | 30-150 | 7 | | 30 | A |
| MCPA | 87 | | 92 | | 30-150 | 6 | | 30 | A |
| Dalapon | 81 | | 93 | | 30-150 | 14 | | 30 | A |
| Dicamba | 69 | | 78 | | 30-150 | 12 | | 30 | A |
| Dichloroprop | 95 | | 103 | | 30-150 | 8 | | 30 | A |
| 2,4-D | 91 | | 98 | | 30-150 | 7 | | 30 | A |
| 2,4-DB | 101 | | 108 | | 30-150 | 7 | | 30 | A |
| 2,4,5-T | 82 | | 91 | | 30-150 | 10 | | 30 | A |
| 2,4,5-TP (Silvex) | 92 | | 105 | | 30-150 | 13 | | 30 | A |
| Dinoseb | 7 | Q | 10 | Q | 30-150 | 30 | | 30 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|-----------|------------------|------|-------------------|------|------------------------|--------|
| DCAA | 83 | | 89 | | 30-150 | A |
| DCAA | 91 | | 98 | | 30-150 | B |

METALS

Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-01

Date Collected: 10/29/13 10:00

Client ID: RC-WC-102913-01

Date Received: 10/29/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 40%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 240 | | mg/kg | 0.94 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:23 | EPA 3050B | 1,6010C | TT |
| Barium, Total | 32 | | mg/kg | 0.94 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:23 | EPA 3050B | 1,6010C | TT |
| Cadmium, Total | 1.8 | | mg/kg | 0.94 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:23 | EPA 3050B | 1,6010C | TT |
| Chromium, Total | 430 | | mg/kg | 0.94 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:23 | EPA 3050B | 1,6010C | TT |
| Lead, Total | 30 | | mg/kg | 4.7 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:23 | EPA 3050B | 1,6010C | TT |
| Mercury, Total | 11 | | mg/kg | 0.38 | -- | 2 | 10/31/13 10:09 | 10/31/13 13:23 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 1.9 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:23 | EPA 3050B | 1,6010C | TT |
| Silver, Total | ND | | mg/kg | 0.94 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:23 | EPA 3050B | 1,6010C | TT |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-02

Date Collected: 10/29/13 10:10

Client ID: RC-WC-102913-02

Date Received: 10/29/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 72%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 110 | | mg/kg | 0.54 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:59 | EPA 3050B | 1,6010C | TT |
| Barium, Total | 22 | | mg/kg | 0.54 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:59 | EPA 3050B | 1,6010C | TT |
| Cadmium, Total | 0.61 | | mg/kg | 0.54 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:59 | EPA 3050B | 1,6010C | TT |
| Chromium, Total | 130 | | mg/kg | 0.54 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:59 | EPA 3050B | 1,6010C | TT |
| Lead, Total | 16 | | mg/kg | 2.7 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:59 | EPA 3050B | 1,6010C | TT |
| Mercury, Total | 1.9 | | mg/kg | 0.11 | -- | 1 | 10/31/13 10:09 | 10/31/13 13:17 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 1.1 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:59 | EPA 3050B | 1,6010C | TT |
| Silver, Total | ND | | mg/kg | 0.54 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:59 | EPA 3050B | 1,6010C | TT |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-03

Date Collected: 10/29/13 10:20

Client ID: RC-WC-102913-03

Date Received: 10/29/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 35%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 150 | | mg/kg | 1.1 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:03 | EPA 3050B | 1,6010C | TT |
| Barium, Total | 23 | | mg/kg | 1.1 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:03 | EPA 3050B | 1,6010C | TT |
| Cadmium, Total | ND | | mg/kg | 1.1 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:03 | EPA 3050B | 1,6010C | TT |
| Chromium, Total | 170 | | mg/kg | 1.1 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:03 | EPA 3050B | 1,6010C | TT |
| Lead, Total | 26 | | mg/kg | 5.5 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:03 | EPA 3050B | 1,6010C | TT |
| Mercury, Total | 4.3 | | mg/kg | 0.22 | -- | 1 | 10/31/13 10:09 | 10/31/13 13:27 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 2.2 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:03 | EPA 3050B | 1,6010C | TT |
| Silver, Total | ND | | mg/kg | 1.1 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:03 | EPA 3050B | 1,6010C | TT |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-04

Date Collected: 10/29/13 10:30

Client ID: RC-WC-102913-04

Date Received: 10/29/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 43%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 140 | | mg/kg | 0.89 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:06 | EPA 3050B | 1,6010C | TT |
| Barium, Total | 25 | | mg/kg | 0.89 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:06 | EPA 3050B | 1,6010C | TT |
| Cadmium, Total | 0.92 | | mg/kg | 0.89 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:06 | EPA 3050B | 1,6010C | TT |
| Chromium, Total | 210 | | mg/kg | 0.89 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:06 | EPA 3050B | 1,6010C | TT |
| Lead, Total | 18 | | mg/kg | 4.4 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:06 | EPA 3050B | 1,6010C | TT |
| Mercury, Total | 4.1 | | mg/kg | 0.17 | -- | 1 | 10/31/13 10:09 | 10/31/13 13:29 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 1.8 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:06 | EPA 3050B | 1,6010C | TT |
| Silver, Total | ND | | mg/kg | 0.89 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:06 | EPA 3050B | 1,6010C | TT |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-05

Date Collected: 10/29/13 10:40

Client ID: RC-WC-102913-05

Date Received: 10/29/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 61%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 160 | | mg/kg | 0.64 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:10 | EPA 3050B | 1,6010C | TT |
| Barium, Total | 28 | | mg/kg | 0.64 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:10 | EPA 3050B | 1,6010C | TT |
| Cadmium, Total | 0.77 | | mg/kg | 0.64 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:10 | EPA 3050B | 1,6010C | TT |
| Chromium, Total | 88 | | mg/kg | 0.64 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:10 | EPA 3050B | 1,6010C | TT |
| Lead, Total | 15 | | mg/kg | 3.2 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:10 | EPA 3050B | 1,6010C | TT |
| Mercury, Total | 1.3 | | mg/kg | 0.12 | -- | 1 | 10/31/13 10:09 | 10/31/13 13:31 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 1.3 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:10 | EPA 3050B | 1,6010C | TT |
| Silver, Total | ND | | mg/kg | 0.64 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:10 | EPA 3050B | 1,6010C | TT |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-06

Date Collected: 10/29/13 10:50

Client ID: RC-WC-102913-06

Date Received: 10/29/13

Sample Location: RED COVE

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 46%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|--------------------------------|--------|-----------|-------|------|-----|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Westborough Lab | | | | | | | | | | | |
| Arsenic, Total | 520 | | mg/kg | 0.85 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:13 | EPA 3050B | 1,6010C | TT |
| Barium, Total | 44 | | mg/kg | 0.85 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:13 | EPA 3050B | 1,6010C | TT |
| Cadmium, Total | 2.1 | | mg/kg | 0.85 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:13 | EPA 3050B | 1,6010C | TT |
| Chromium, Total | 400 | | mg/kg | 0.85 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:13 | EPA 3050B | 1,6010C | TT |
| Lead, Total | 33 | | mg/kg | 4.2 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:13 | EPA 3050B | 1,6010C | TT |
| Mercury, Total | 8.5 | | mg/kg | 0.17 | -- | 1 | 10/31/13 10:09 | 10/31/13 13:33 | EPA 7471B | 1,7471B | MC |
| Selenium, Total | ND | | mg/kg | 1.7 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:13 | EPA 3050B | 1,6010C | TT |
| Silver, Total | ND | | mg/kg | 0.85 | -- | 1 | 10/29/13 14:44 | 10/30/13 10:13 | EPA 3050B | 1,6010C | TT |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG647886-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.40 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:16 | 1,6010C | TT |
| Barium, Total | ND | | mg/kg | 0.40 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:16 | 1,6010C | TT |
| Cadmium, Total | ND | | mg/kg | 0.40 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:16 | 1,6010C | TT |
| Chromium, Total | ND | | mg/kg | 0.40 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:16 | 1,6010C | TT |
| Lead, Total | ND | | mg/kg | 2.0 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:16 | 1,6010C | TT |
| Selenium, Total | ND | | mg/kg | 0.80 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:16 | 1,6010C | TT |
| Silver, Total | ND | | mg/kg | 0.40 | -- | 1 | 10/29/13 14:44 | 10/30/13 09:16 | 1,6010C | TT |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|------|-----|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG648217-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.08 | -- | 1 | 10/31/13 10:09 | 10/31/13 12:20 | 1,7471B | MC |

Prep Information

Digestion Method: EPA 7471B



Lab Control Sample Analysis Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG647886-2 SRM Lot Number: 0518-10-02 | | | | | | | | |
| Arsenic, Total | 100 | | - | | 81-119 | - | | |
| Barium, Total | 96 | | - | | 83-118 | - | | |
| Cadmium, Total | 94 | | - | | 82-117 | - | | |
| Chromium, Total | 92 | | - | | 80-119 | - | | |
| Lead, Total | 94 | | - | | 80-120 | - | | |
| Selenium, Total | 102 | | - | | 80-120 | - | | |
| Silver, Total | 102 | | - | | 66-134 | - | | |
| Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG648217-2 SRM Lot Number: 0518-10-02 | | | | | | | | |
| Mercury, Total | 127 | | - | | 67-133 | - | | |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647886-4 QC Sample: L1321771-01 Client ID: RC-WC-102913-01 | | | | | | | | | | | | |
| Arsenic, Total | 240 | 23.1 | 220 | 0 | Q | - | - | | 75-125 | - | | 35 |
| Barium, Total | 32 | 386 | 400 | 95 | | - | - | | 75-125 | - | | 35 |
| Cadmium, Total | 1.8 | 9.83 | 10 | 83 | | - | - | | 75-125 | - | | 35 |
| Chromium, Total | 430 | 38.6 | 370 | 0 | Q | - | - | | 75-125 | - | | 35 |
| Lead, Total | 30 | 98.3 | 120 | 92 | | - | - | | 75-125 | - | | 35 |
| Selenium, Total | ND | 23.1 | 24 | 104 | | - | - | | 75-125 | - | | 35 |
| Silver, Total | ND | 57.8 | 55 | 95 | | - | - | | 75-125 | - | | 35 |
| Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648217-4 QC Sample: L1321542-16 Client ID: MS Sample | | | | | | | | | | | | |
| Mercury, Total | 0.27 | 0.146 | 0.48 | 143 | Q | - | - | | 70-130 | - | | 35 |

Lab Duplicate Analysis Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647886-3 QC Sample: L1321771-01 Client ID: RC-WC-102913-01 | | | | | | |
| Arsenic, Total | 240 | 200 | mg/kg | 18 | | 35 |
| Barium, Total | 32 | 32 | mg/kg | 0 | | 35 |
| Cadmium, Total | 1.8 | 1.6 | mg/kg | 12 | | 35 |
| Chromium, Total | 430 | 340 | mg/kg | 23 | | 35 |
| Lead, Total | 30 | 29 | mg/kg | 3 | | 35 |
| Selenium, Total | ND | ND | mg/kg | NC | | 35 |
| Silver, Total | ND | ND | mg/kg | NC | | 35 |
| Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648217-3 QC Sample: L1321542-16 Client ID: DUP Sample | | | | | | |
| Mercury, Total | 0.27 | 0.25 | mg/kg | 8 | | 35 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-01

Client ID: RC-WC-102913-01

Sample Location: RED COVE

Matrix: Sediment

Date Collected: 10/29/13 10:00

Date Received: 10/29/13

Field Prep: Not Specified

Test Material Information

Source of Material: Unknown

Description of Material: Non-Metallic - Damp Soil

Particle Size: Medium

Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 10/29/13 20:35 | 1,1030 | TL |



Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-02

Client ID: RC-WC-102913-02

Sample Location: RED COVE

Matrix: Sediment

Date Collected: 10/29/13 10:10

Date Received: 10/29/13

Field Prep: Not Specified

Test Material Information

Source of Material: Unknown

Description of Material: Non-Metallic - Damp Soil

Particle Size: Medium

Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 10/29/13 20:35 | 1,1030 | TL |



Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-03

Client ID: RC-WC-102913-03

Sample Location: RED COVE

Matrix: Sediment

Date Collected: 10/29/13 10:20

Date Received: 10/29/13

Field Prep: Not Specified

Test Material Information

Source of Material: Unknown

Description of Material: Non-Metallic - Damp Soil

Particle Size: Medium

Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 10/29/13 20:35 | 1,1030 | TL |



Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-04

Client ID: RC-WC-102913-04

Sample Location: RED COVE

Matrix: Sediment

Date Collected: 10/29/13 10:30

Date Received: 10/29/13

Field Prep: Not Specified

Test Material Information

Source of Material: Unknown

Description of Material: Non-Metallic - Damp Soil

Particle Size: Medium

Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 10/29/13 20:35 | 1,1030 | TL |



Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-05

Client ID: RC-WC-102913-05

Sample Location: RED COVE

Matrix: Sediment

Date Collected: 10/29/13 10:40

Date Received: 10/29/13

Field Prep: Not Specified

Test Material Information

Source of Material: Unknown

Description of Material: Non-Metallic - Damp Soil

Particle Size: Medium

Preliminary Burning Time (sec): 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|--------|----------------|-------------------|---------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 10/29/13 20:35 | 1,1030 | TL |



Project Name: DEVENS-AC001.005**Project Number:** AC001.005**Lab Number:** L1321771**Report Date:** 10/31/13**SAMPLE RESULTS****Lab ID:** L1321771-06**Client ID:** RC-WC-102913-06**Sample Location:** RED COVE**Matrix:** Sediment**Date Collected:** 10/29/13 10:50**Date Received:** 10/29/13**Field Prep:** Not Specified**Test Material Information****Source of Material:** Unknown**Description of Material:** Non-Metallic - Damp Soil**Particle Size:** Medium**Preliminary Burning Time (sec):** 120

| Parameter | Result | Date Analyzed | Analytical Method | Analyst |
|--|---------------|----------------------|--------------------------|----------------|
| Ignitability of Solids - Westborough Lab | | | | |
| Ignitability | NI | 10/29/13 20:35 | 1,1030 | TL |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-01
 Client ID: RC-WC-102913-01
 Sample Location: RED COVE
 Matrix: Sediment

Date Collected: 10/29/13 10:00
 Date Received: 10/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 40.3 | | % | 0.100 | NA | 1 | - | 10/29/13 14:14 | 30,2540G | DG |
| pH (H) | 11.7 | | SU | - | NA | 1 | - | 10/30/13 00:06 | 1,9045D | EL |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:22 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:12 | 1,7.3 | TL |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-02
 Client ID: RC-WC-102913-02
 Sample Location: RED COVE
 Matrix: Sediment

Date Collected: 10/29/13 10:10
 Date Received: 10/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 71.6 | | % | 0.100 | NA | 1 | - | 10/29/13 14:14 | 30,2540G | DG |
| pH (H) | 7.2 | | SU | - | NA | 1 | - | 10/30/13 00:06 | 1,9045D | EL |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:22 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:13 | 1,7.3 | TL |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-03
 Client ID: RC-WC-102913-03
 Sample Location: RED COVE
 Matrix: Sediment

Date Collected: 10/29/13 10:20
 Date Received: 10/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 35.3 | | % | 0.100 | NA | 1 | - | 10/29/13 14:14 | 30,2540G | DG |
| pH (H) | 11.6 | | SU | - | NA | 1 | - | 10/30/13 00:06 | 1,9045D | EL |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:22 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:13 | 1,7.3 | TL |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-04
 Client ID: RC-WC-102913-04
 Sample Location: RED COVE
 Matrix: Sediment

Date Collected: 10/29/13 10:30
 Date Received: 10/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 43.1 | | % | 0.100 | NA | 1 | - | 10/29/13 14:14 | 30,2540G | DG |
| pH (H) | 11.8 | | SU | - | NA | 1 | - | 10/30/13 00:06 | 1,9045D | EL |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:23 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:13 | 1,7.3 | TL |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-05
 Client ID: RC-WC-102913-05
 Sample Location: RED COVE
 Matrix: Sediment

Date Collected: 10/29/13 10:40
 Date Received: 10/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 61.2 | | % | 0.100 | NA | 1 | - | 10/29/13 14:14 | 30,2540G | DG |
| pH (H) | 11.7 | | SU | - | NA | 1 | - | 10/30/13 00:06 | 1,9045D | EL |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:23 | 1,7.3 | TL |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:14 | 1,7.3 | TL |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-06
 Client ID: RC-WC-102913-06
 Sample Location: RED COVE
 Matrix: Sediment

Date Collected: 10/29/13 10:50
 Date Received: 10/29/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 45.6 | | % | 0.100 | NA | 1 | - | 10/29/13 14:14 | 30,2540G | DG |
| pH (H) | 11.2 | | SU | - | NA | 1 | - | 10/30/13 00:06 | 1,9045D | EL |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:23 | 1,7.3 | TL |
| Sulfide, Reactive | 20 | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:14 | 1,7.3 | TL |



Project Name: DEVENS-AC001.005

Lab Number: L1321771

Project Number: AC001.005

Report Date: 10/31/13

Method Blank Analysis
Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG647875-1 | | | | | | | | | | |
| Cyanide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:19 | 1,7.3 | TL |
| General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG647876-1 | | | | | | | | | | |
| Sulfide, Reactive | ND | | mg/kg | 10 | -- | 1 | 10/29/13 17:10 | 10/29/13 19:09 | 1,7.3 | TL |



Lab Control Sample Analysis**Batch Quality Control****Project Name:** DEVENS-AC001.005**Project Number:** AC001.005**Lab Number:** L1321771**Report Date:** 10/31/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG647875-2 | | | | | | | | |
| Cyanide, Reactive | 73 | | - | | 30-125 | - | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG647876-2 | | | | | | | | |
| Sulfide, Reactive | 82 | | - | | 60-125 | - | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG647943-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | |

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1321771
Report Date: 10/31/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647874-1 QC Sample: L1321581-04 Client ID: DUP Sample | | | | | | |
| Solids, Total | 83.4 | 83.1 | % | 0 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647875-3 QC Sample: L1321505-01 Client ID: DUP Sample | | | | | | |
| Cyanide, Reactive | ND | ND | mg/kg | NC | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647876-3 QC Sample: L1321505-01 Client ID: DUP Sample | | | | | | |
| Sulfide, Reactive | ND | ND | mg/kg | NC | | 40 |
| General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647943-2 QC Sample: L1321771-01 Client ID: RC-WC-102913-01 | | | | | | |
| pH (H) | 11.7 | 11.7 | SU | 0 | | 5 |

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|------------|------|--------|---|
| L1321771-01A | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180) |
| L1321771-01B | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180) |
| L1321771-01C | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180) |
| L1321771-02A | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180) |
| L1321771-02B | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1321771-02C | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-03A | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-03B | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-03C | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-04A | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-04B | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-04C | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |

*Values in parentheses indicate holding time in days



Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---|
| L1321771-05A | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-05B | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-05C | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-06A | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-06B | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |
| L1321771-06C | Amber 250ml unpreserved | A | N/A | 5.5 | Y | Absent | IGNIT- 1030(14),REACTS(14),AS- TI(180),BA-TI(180),AG- TI(180),CR-TI(180),PCB- 8082(14),TS(7),PB-TI(180),PH- 9045(1),SE-TI(180),PEST- 8081(14),HERB-8151(14),HG- T(28),REACTCN(14),CD-TI(180) |

Container Comments

L1321771-01C

L1321771-02C

L1321771-03C

L1321771-04C

*Values in parentheses indicate holding time in days



Project Name: DEVENS-AC001.005**Project Number:** AC001.005**Lab Number:** L1321771**Report Date:** 10/31/13**Container Information**

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|----------------|--------|----|---------------|------|------|-------------|
|--------------|----------------|--------|----|---------------|------|------|-------------|

Container Comments

L1321771-05C

L1321771-06C

*Values in parentheses indicate holding time in days

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report



Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: DEVENS-AC001.005**Lab Number:** L1321771**Project Number:** AC001.005**Report Date:** 10/31/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commissoon on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

PAGE 1 OF 1

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Email: RLeary@Sovcon.com

Additional Project Information:

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due:

☒ RUSH (only confirmed if pre-approved!)
24 hr
10/30/13

Date Rec'd in Lab:

10/29/13

ALPHA Job #:

4132177

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

☐ Same as Client info

PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program Criteria

| ANALYSIS | | SAMPLE INFO | |
|---|--|------------------------------------|--|
| VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 | | Filtration | |
| SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH | | <input type="checkbox"/> Field | |
| METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 | | <input type="checkbox"/> Lab to do | |
| METALS: <input type="checkbox"/> RCR45 <input type="checkbox"/> RCR48 <input type="checkbox"/> PP13 | | Preservation | |
| EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | | <input type="checkbox"/> Lab to do | |
| VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | | | |
| <input type="checkbox"/> PCB <input type="checkbox"/> PEST | | | |
| TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | | | |
| Pest 8081, Herb 8151 PCBs, PH React, Flash T RCR48 * | | | |
| | | Sample Comments | |

| TOTAL # | BOOK TITLES |
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| 99 | 99 |
| 100 | 100 |

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do

Preservation
☐ Lab to do

Sample Comments

[illegible]**Container Type**

Preservative

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H = Na₂S₂O₃
I= Ascorbic Acid
J = NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

| | | |
|---|---|---|
| A | A | A |
|---|---|---|

| | | |
|---|---|---|
| A | A | A |
|---|---|---|

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L1323043 |
| Client: | Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040 |
| ATTN: | Rachel Leary |
| Phone: | (413) 540-0650 |
| Project Name: | AC001.005 |
| Project Number: | AC001.005 |
| Report Date: | 11/15/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|------------------|----------------------------|---------------------------------|
| L1323043-01 | RC-WC-111213-01 | DEVENS | 11/12/13 12:02 |
| L1323043-02 | RC-WC-111213-02 | DEVENS | 11/12/13 12:04 |
| L1323043-03 | RC-WC-111213-03 | DEVENS | 11/12/13 12:06 |
| L1323043-04 | RC-WC-111213-04 | DEVENS | 11/12/13 12:08 |
| L1323043-05 | RC-WC-111213-05 | DEVENS | 11/12/13 12:10 |
| L1323043-06 | RC-WC-111213-06 | DEVENS | 11/12/13 12:12 |
| L1323043-07 | RC-WC-111213-07 | DEVENS | 11/12/13 12:14 |
| L1323043-08 | RC-WC-111213-08 | DEVENS | 11/12/13 12:16 |

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**Case Narrative (continued)**

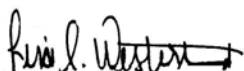
Semivolatile Organics

The surrogate recoveries were below the acceptance criteria for 2-fluorophenol; however, re-extraction achieved similar results. The results of both extractions are reported for the following samples:

- 01: Original (6%), Re-Extract (4%)
- 02: Original (7%), Re-Extract (5%)
- 03: Original (6%), Re-Extract (2%)
- 04: Original (7%), Re-Extract (8%)
- 05: Original (5%), Re-Extract (4%)
- 06: Original (7%), Re-Extract (5%)
- 07: Original (6%), Re-Extract (3%)
- 08: Original (7%), Re-Extract (2%)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 11/15/13

ORGANICS

VOLATILES

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-01
Client ID: RC-WC-111213-01
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 10:30
Analyst: BN
Percent Solids: 52%

Date Collected: 11/12/13 12:02
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1600 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 230 | -- | 1 |
| Chloroform | ND | | ug/kg | 230 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 540 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 230 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 160 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 160 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 780 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 160 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 780 | -- | 1 |
| Bromoform | ND | | ug/kg | 620 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Benzene | ND | | ug/kg | 160 | -- | 1 |
| Toluene | ND | | ug/kg | 230 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 160 | -- | 1 |
| Chloromethane | ND | | ug/kg | 780 | -- | 1 |
| Bromomethane | ND | | ug/kg | 310 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 310 | -- | 1 |
| Chloroethane | ND | | ug/kg | 310 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 230 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 780 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 780 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 780 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01

Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 310 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 310 | -- | 1 |
| o-Xylene | ND | | ug/kg | 310 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 310 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1600 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1600 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1600 | -- | 1 |
| Styrene | ND | | ug/kg | 310 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1600 | -- | 1 |
| Acetone | ND | | ug/kg | 5600 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1600 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1600 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1600 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1600 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1600 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1600 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 620 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 780 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 3100 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 780 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 620 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 780 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 780 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 780 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 780 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 780 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 780 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 780 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 160 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 160 | -- | 1 |
| Naphthalene | ND | | ug/kg | 780 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 160 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 780 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 780 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 780 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01

Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 780 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 780 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 780 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 97 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-02
Client ID: RC-WC-111213-02
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 10:57
Analyst: BN
Percent Solids: 52%

Date Collected: 11/12/13 12:04
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1600 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 240 | -- | 1 |
| Chloroform | ND | | ug/kg | 240 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 560 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 240 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 160 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 160 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 800 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 160 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 800 | -- | 1 |
| Bromoform | ND | | ug/kg | 640 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Benzene | ND | | ug/kg | 160 | -- | 1 |
| Toluene | ND | | ug/kg | 240 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 160 | -- | 1 |
| Chloromethane | ND | | ug/kg | 800 | -- | 1 |
| Bromomethane | ND | | ug/kg | 320 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 320 | -- | 1 |
| Chloroethane | ND | | ug/kg | 320 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 240 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 800 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 800 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 800 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02
 Client ID: RC-WC-111213-02
 Sample Location: DEVENS

Date Collected: 11/12/13 12:04
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 320 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 320 | -- | 1 |
| o-Xylene | ND | | ug/kg | 320 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 320 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1600 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1600 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1600 | -- | 1 |
| Styrene | ND | | ug/kg | 320 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1600 | -- | 1 |
| Acetone | ND | | ug/kg | 5800 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1600 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1600 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1600 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1600 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1600 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1600 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 640 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 800 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 3200 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 800 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 640 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 800 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 800 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 800 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 800 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 800 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 800 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 800 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 160 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 160 | -- | 1 |
| Naphthalene | ND | | ug/kg | 800 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 160 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 800 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 800 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 800 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02
 Client ID: RC-WC-111213-02
 Sample Location: DEVENS

Date Collected: 11/12/13 12:04
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 800 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 800 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 800 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 95 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-03
Client ID: RC-WC-111213-03
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 11:25
Analyst: BN
Percent Solids: 49%

Date Collected: 11/12/13 12:06
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1800 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 270 | -- | 1 |
| Chloroform | ND | | ug/kg | 270 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 180 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 630 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 180 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 270 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 180 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 180 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 900 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 180 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 180 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 180 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 180 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 180 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 900 | -- | 1 |
| Bromoform | ND | | ug/kg | 720 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 180 | -- | 1 |
| Benzene | ND | | ug/kg | 180 | -- | 1 |
| Toluene | ND | | ug/kg | 270 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 180 | -- | 1 |
| Chloromethane | ND | | ug/kg | 900 | -- | 1 |
| Bromomethane | ND | | ug/kg | 360 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 360 | -- | 1 |
| Chloroethane | ND | | ug/kg | 360 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 180 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 270 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 180 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 900 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 900 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 900 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03

Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 360 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 360 | -- | 1 |
| o-Xylene | ND | | ug/kg | 360 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 360 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 180 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1800 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1800 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1800 | -- | 1 |
| Styrene | ND | | ug/kg | 360 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1800 | -- | 1 |
| Acetone | ND | | ug/kg | 6500 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1800 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1800 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1800 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1800 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1800 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1800 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 720 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 900 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 3600 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 900 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 720 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 900 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 180 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 900 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 180 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 180 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 900 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 900 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 900 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 900 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 900 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 180 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 180 | -- | 1 |
| Naphthalene | ND | | ug/kg | 900 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 180 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 900 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 900 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 900 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03
 Client ID: RC-WC-111213-03
 Sample Location: DEVENS

Date Collected: 11/12/13 12:06
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 900 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 900 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 900 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-04
Client ID: RC-WC-111213-04
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 11:52
Analyst: BN
Percent Solids: 48%

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1600 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 240 | -- | 1 |
| Chloroform | ND | | ug/kg | 240 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 570 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 240 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 160 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 160 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 810 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 160 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 810 | -- | 1 |
| Bromoform | ND | | ug/kg | 650 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Benzene | ND | | ug/kg | 160 | -- | 1 |
| Toluene | ND | | ug/kg | 240 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 160 | -- | 1 |
| Chloromethane | ND | | ug/kg | 810 | -- | 1 |
| Bromomethane | ND | | ug/kg | 320 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 320 | -- | 1 |
| Chloroethane | ND | | ug/kg | 320 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 240 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 810 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 810 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 810 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04

Date Collected: 11/12/13 12:08

Client ID: RC-WC-111213-04

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 320 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 320 | -- | 1 |
| o-Xylene | ND | | ug/kg | 320 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 320 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1600 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1600 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1600 | -- | 1 |
| Styrene | ND | | ug/kg | 320 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1600 | -- | 1 |
| Acetone | ND | | ug/kg | 5900 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1600 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1600 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1600 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1600 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1600 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1600 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 650 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 810 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 3200 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 810 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 650 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 810 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 810 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 810 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 810 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 810 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 810 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 810 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 160 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 160 | -- | 1 |
| Naphthalene | ND | | ug/kg | 810 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 160 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 810 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 810 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 810 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04
 Client ID: RC-WC-111213-04
 Sample Location: DEVENS

Date Collected: 11/12/13 12:08
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 810 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 810 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 810 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 92 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 92 | | 70-130 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-05
Client ID: RC-WC-111213-05
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 12:19
Analyst: BN
Percent Solids: 53%

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1600 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 250 | -- | 1 |
| Chloroform | ND | | ug/kg | 250 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 580 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 250 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 160 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 160 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 820 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 160 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 160 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 160 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 820 | -- | 1 |
| Bromoform | ND | | ug/kg | 660 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Benzene | ND | | ug/kg | 160 | -- | 1 |
| Toluene | ND | | ug/kg | 250 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 160 | -- | 1 |
| Chloromethane | ND | | ug/kg | 820 | -- | 1 |
| Bromomethane | ND | | ug/kg | 330 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 330 | -- | 1 |
| Chloroethane | ND | | ug/kg | 330 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 250 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 160 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 820 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 820 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 820 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05
 Client ID: RC-WC-111213-05
 Sample Location: DEVENS

Date Collected: 11/12/13 12:10
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 330 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 330 | -- | 1 |
| o-Xylene | ND | | ug/kg | 330 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 330 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 160 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1600 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1600 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1600 | -- | 1 |
| Styrene | ND | | ug/kg | 330 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1600 | -- | 1 |
| Acetone | ND | | ug/kg | 5900 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1600 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1600 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1600 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1600 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1600 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1600 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 660 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 820 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 3300 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 820 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 660 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 820 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 160 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 820 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 160 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 820 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 820 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 820 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 820 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 820 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 160 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 160 | -- | 1 |
| Naphthalene | ND | | ug/kg | 820 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 160 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 820 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 820 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 820 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05
 Client ID: RC-WC-111213-05
 Sample Location: DEVENS

Date Collected: 11/12/13 12:10
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 820 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 820 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 820 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 92 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 97 | | 70-130 |
| Dibromofluoromethane | 95 | | 70-130 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-06
Client ID: RC-WC-111213-06
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 12:47
Analyst: BN
Percent Solids: 52%

Date Collected: 11/12/13 12:12
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1200 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 180 | -- | 1 |
| Chloroform | ND | | ug/kg | 180 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 120 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 430 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 120 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 180 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 120 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 120 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 610 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 120 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 120 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 120 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 120 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 120 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 610 | -- | 1 |
| Bromoform | ND | | ug/kg | 490 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 120 | -- | 1 |
| Benzene | ND | | ug/kg | 120 | -- | 1 |
| Toluene | ND | | ug/kg | 180 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 120 | -- | 1 |
| Chloromethane | ND | | ug/kg | 610 | -- | 1 |
| Bromomethane | ND | | ug/kg | 240 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 240 | -- | 1 |
| Chloroethane | ND | | ug/kg | 240 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 120 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 180 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 120 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 610 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06
 Client ID: RC-WC-111213-06
 Sample Location: DEVENS

Date Collected: 11/12/13 12:12
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 240 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 240 | -- | 1 |
| o-Xylene | ND | | ug/kg | 240 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 240 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 120 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1200 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1200 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1200 | -- | 1 |
| Styrene | ND | | ug/kg | 240 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1200 | -- | 1 |
| Acetone | ND | | ug/kg | 4400 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1200 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1200 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1200 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1200 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1200 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1200 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 490 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 610 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 2400 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 610 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 490 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 610 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 120 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 610 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 120 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 120 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 610 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 610 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 610 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 610 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 610 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 120 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 120 | -- | 1 |
| Naphthalene | ND | | ug/kg | 610 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 120 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 610 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 610 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06
 Client ID: RC-WC-111213-06
 Sample Location: DEVENS

Date Collected: 11/12/13 12:12
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 610 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 610 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 610 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 92 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-07
Client ID: RC-WC-111213-07
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 13:14
Analyst: BN
Percent Solids: 53%

Date Collected: 11/12/13 12:14
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1200 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 170 | -- | 1 |
| Chloroform | ND | | ug/kg | 170 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 120 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 410 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 120 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 170 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 120 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 120 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 580 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 120 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 120 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 120 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 120 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 120 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 580 | -- | 1 |
| Bromoform | ND | | ug/kg | 470 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 120 | -- | 1 |
| Benzene | ND | | ug/kg | 120 | -- | 1 |
| Toluene | ND | | ug/kg | 170 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 120 | -- | 1 |
| Chloromethane | ND | | ug/kg | 580 | -- | 1 |
| Bromomethane | ND | | ug/kg | 230 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 230 | -- | 1 |
| Chloroethane | ND | | ug/kg | 230 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 120 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 170 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 120 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 580 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 580 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 580 | -- | 1 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-07
 Client ID: RC-WC-111213-07
 Sample Location: DEVENS

Date Collected: 11/12/13 12:14
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 230 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 230 | -- | 1 |
| o-Xylene | ND | | ug/kg | 230 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 230 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 120 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1200 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1200 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1200 | -- | 1 |
| Styrene | ND | | ug/kg | 230 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1200 | -- | 1 |
| Acetone | 5600 | | ug/kg | 4200 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1200 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1200 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1200 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1200 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1200 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1200 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 470 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 580 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 2300 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 580 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 470 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 580 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 120 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 580 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 120 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 120 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 580 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 580 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 580 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 580 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 580 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 120 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 120 | -- | 1 |
| Naphthalene | ND | | ug/kg | 580 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 120 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 580 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 580 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 580 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07
 Client ID: RC-WC-111213-07
 Sample Location: DEVENS

Date Collected: 11/12/13 12:14
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 580 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 580 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 580 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 95 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 97 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-08
Client ID: RC-WC-111213-08
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/14/13 13:41
Analyst: BN
Percent Solids: 49%

Date Collected: 11/12/13 12:16
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methylene chloride | ND | | ug/kg | 1400 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 200 | -- | 1 |
| Chloroform | ND | | ug/kg | 200 | -- | 1 |
| Carbon tetrachloride | ND | | ug/kg | 140 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 480 | -- | 1 |
| Dibromochloromethane | ND | | ug/kg | 140 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 200 | -- | 1 |
| Tetrachloroethene | ND | | ug/kg | 140 | -- | 1 |
| Chlorobenzene | ND | | ug/kg | 140 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 680 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 140 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 140 | -- | 1 |
| Bromodichloromethane | ND | | ug/kg | 140 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 140 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 140 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 680 | -- | 1 |
| Bromoform | ND | | ug/kg | 540 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 140 | -- | 1 |
| Benzene | ND | | ug/kg | 140 | -- | 1 |
| Toluene | ND | | ug/kg | 200 | -- | 1 |
| Ethylbenzene | ND | | ug/kg | 140 | -- | 1 |
| Chloromethane | ND | | ug/kg | 680 | -- | 1 |
| Bromomethane | ND | | ug/kg | 270 | -- | 1 |
| Vinyl chloride | ND | | ug/kg | 270 | -- | 1 |
| Chloroethane | ND | | ug/kg | 270 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 140 | -- | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 200 | -- | 1 |
| Trichloroethene | ND | | ug/kg | 140 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 680 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 680 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 680 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08

Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 270 | -- | 1 |
| p/m-Xylene | ND | | ug/kg | 270 | -- | 1 |
| o-Xylene | ND | | ug/kg | 270 | -- | 1 |
| Xylenes, Total | ND | | ug/kg | 270 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 140 | -- | 1 |
| Dibromomethane | ND | | ug/kg | 1400 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/kg | 1400 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1400 | -- | 1 |
| Styrene | ND | | ug/kg | 270 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 1400 | -- | 1 |
| Acetone | ND | | ug/kg | 4900 | -- | 1 |
| Carbon disulfide | ND | | ug/kg | 1400 | -- | 1 |
| 2-Butanone | ND | | ug/kg | 1400 | -- | 1 |
| Vinyl acetate | ND | | ug/kg | 1400 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 1400 | -- | 1 |
| 2-Hexanone | ND | | ug/kg | 1400 | -- | 1 |
| Ethyl methacrylate | ND | | ug/kg | 1400 | -- | 1 |
| Acrylonitrile | ND | | ug/kg | 540 | -- | 1 |
| Bromochloromethane | ND | | ug/kg | 680 | -- | 1 |
| Tetrahydrofuran | ND | | ug/kg | 2700 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 680 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 540 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 680 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 140 | -- | 1 |
| Bromobenzene | ND | | ug/kg | 680 | -- | 1 |
| n-Butylbenzene | ND | | ug/kg | 140 | -- | 1 |
| sec-Butylbenzene | ND | | ug/kg | 140 | -- | 1 |
| tert-Butylbenzene | ND | | ug/kg | 680 | -- | 1 |
| o-Chlorotoluene | ND | | ug/kg | 680 | -- | 1 |
| p-Chlorotoluene | ND | | ug/kg | 680 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 680 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 680 | -- | 1 |
| Isopropylbenzene | ND | | ug/kg | 140 | -- | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 140 | -- | 1 |
| Naphthalene | ND | | ug/kg | 680 | -- | 1 |
| n-Propylbenzene | ND | | ug/kg | 140 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 680 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 680 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 680 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08
 Client ID: RC-WC-111213-08
 Sample Location: DEVENS

Date Collected: 11/12/13 12:16
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by EPA 5035 High - Westborough Lab | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 680 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 680 | -- | 1 |
| Ethyl ether | ND | | ug/kg | 680 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 95 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 70-130 |
| Dibromofluoromethane | 95 | | 70-130 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/14/13 10:03
 Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-----|-----|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3 | | | | | |
| Methylene chloride | ND | | ug/kg | 500 | -- |
| 1,1-Dichloroethane | ND | | ug/kg | 75 | -- |
| Chloroform | ND | | ug/kg | 75 | -- |
| Carbon tetrachloride | ND | | ug/kg | 50 | -- |
| 1,2-Dichloropropane | ND | | ug/kg | 180 | -- |
| Dibromochloromethane | ND | | ug/kg | 50 | -- |
| 1,1,2-Trichloroethane | ND | | ug/kg | 75 | -- |
| Tetrachloroethene | ND | | ug/kg | 50 | -- |
| Chlorobenzene | ND | | ug/kg | 50 | -- |
| Trichlorofluoromethane | ND | | ug/kg | 250 | -- |
| 1,2-Dichloroethane | ND | | ug/kg | 50 | -- |
| 1,1,1-Trichloroethane | ND | | ug/kg | 50 | -- |
| Bromodichloromethane | ND | | ug/kg | 50 | -- |
| trans-1,3-Dichloropropene | ND | | ug/kg | 50 | -- |
| cis-1,3-Dichloropropene | ND | | ug/kg | 50 | -- |
| 1,1-Dichloropropene | ND | | ug/kg | 250 | -- |
| Bromoform | ND | | ug/kg | 200 | -- |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 50 | -- |
| Benzene | ND | | ug/kg | 50 | -- |
| Toluene | ND | | ug/kg | 75 | -- |
| Ethylbenzene | ND | | ug/kg | 50 | -- |
| Chloromethane | ND | | ug/kg | 250 | -- |
| Bromomethane | ND | | ug/kg | 100 | -- |
| Vinyl chloride | ND | | ug/kg | 100 | -- |
| Chloroethane | ND | | ug/kg | 100 | -- |
| 1,1-Dichloroethene | ND | | ug/kg | 50 | -- |
| trans-1,2-Dichloroethene | ND | | ug/kg | 75 | -- |
| Trichloroethene | ND | | ug/kg | 50 | -- |
| 1,2-Dichlorobenzene | ND | | ug/kg | 250 | -- |
| 1,3-Dichlorobenzene | ND | | ug/kg | 250 | -- |
| 1,4-Dichlorobenzene | ND | | ug/kg | 250 | -- |



Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/14/13 10:03
 Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|-----|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3 | | | | | |
| Methyl tert butyl ether | ND | | ug/kg | 100 | -- |
| p/m-Xylene | ND | | ug/kg | 100 | -- |
| o-Xylene | ND | | ug/kg | 100 | -- |
| Xylenes, Total | ND | | ug/kg | 100 | -- |
| cis-1,2-Dichloroethene | ND | | ug/kg | 50 | -- |
| Dibromomethane | ND | | ug/kg | 500 | -- |
| 1,4-Dichlorobutane | ND | | ug/kg | 500 | -- |
| 1,2,3-Trichloropropane | ND | | ug/kg | 500 | -- |
| Styrene | ND | | ug/kg | 100 | -- |
| Dichlorodifluoromethane | ND | | ug/kg | 500 | -- |
| Acetone | ND | | ug/kg | 1800 | -- |
| Carbon disulfide | ND | | ug/kg | 500 | -- |
| 2-Butanone | ND | | ug/kg | 500 | -- |
| Vinyl acetate | ND | | ug/kg | 500 | -- |
| 4-Methyl-2-pentanone | ND | | ug/kg | 500 | -- |
| 2-Hexanone | ND | | ug/kg | 500 | -- |
| Ethyl methacrylate | ND | | ug/kg | 500 | -- |
| Acrolein | ND | | ug/kg | 1200 | -- |
| Acrylonitrile | ND | | ug/kg | 200 | -- |
| Bromochloromethane | ND | | ug/kg | 250 | -- |
| Tetrahydrofuran | ND | | ug/kg | 1000 | -- |
| 2,2-Dichloropropane | ND | | ug/kg | 250 | -- |
| 1,2-Dibromoethane | ND | | ug/kg | 200 | -- |
| 1,3-Dichloropropane | ND | | ug/kg | 250 | -- |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 50 | -- |
| Bromobenzene | ND | | ug/kg | 250 | -- |
| n-Butylbenzene | ND | | ug/kg | 50 | -- |
| sec-Butylbenzene | ND | | ug/kg | 50 | -- |
| tert-Butylbenzene | ND | | ug/kg | 250 | -- |
| 1,3,5-Trichlorobenzene | ND | | ug/kg | 200 | -- |
| o-Chlorotoluene | ND | | ug/kg | 250 | -- |



Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/14/13 10:03
 Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|-----|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 250 | -- |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 250 | -- |
| Hexachlorobutadiene | ND | | ug/kg | 250 | -- |
| Isopropylbenzene | ND | | ug/kg | 50 | -- |
| p-Isopropyltoluene | ND | | ug/kg | 50 | -- |
| Naphthalene | ND | | ug/kg | 250 | -- |
| n-Propylbenzene | ND | | ug/kg | 50 | -- |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 250 | -- |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 250 | -- |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 250 | -- |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 250 | -- |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 250 | -- |
| Ethyl ether | ND | | ug/kg | 250 | -- |
| Methyl Acetate | ND | | ug/kg | 1000 | -- |
| Ethyl Acetate | ND | | ug/kg | 1000 | -- |
| Isopropyl Ether | ND | | ug/kg | 200 | -- |
| Cyclohexane | ND | | ug/kg | 1000 | -- |
| Tert-Butyl Alcohol | ND | | ug/kg | 5000 | -- |
| Ethyl-Tert-Butyl-Ether | ND | | ug/kg | 200 | -- |
| Tertiary-Amyl Methyl Ether | ND | | ug/kg | 200 | -- |
| 1,4-Dioxane | ND | | ug/kg | 5000 | -- |
| Methyl cyclohexane | ND | | ug/kg | 200 | -- |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | | ug/kg | 1000 | -- |
| p-Diethylbenzene | ND | | ug/kg | 200 | -- |
| 4-Ethyltoluene | ND | | ug/kg | 200 | -- |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 200 | -- |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**Method Blank Analysis**
Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 11/14/13 10:03

Analyst: BN

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|----|-----|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|------------------------|
| 1,2-Dichloroethane-d4 | 92 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 70-130 |
| Dibromofluoromethane | 95 | | 70-130 |

Lab Control Sample Analysis **Batch Quality Control**

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2 | | | | | | | | |
| Methylene chloride | 98 | | 100 | | 70-130 | 2 | | 30 |
| 1,1-Dichloroethane | 104 | | 106 | | 70-130 | 2 | | 30 |
| Chloroform | 105 | | 109 | | 70-130 | 4 | | 30 |
| Carbon tetrachloride | 108 | | 111 | | 70-130 | 3 | | 30 |
| 1,2-Dichloropropane | 101 | | 105 | | 70-130 | 4 | | 30 |
| Dibromochloromethane | 98 | | 103 | | 70-130 | 5 | | 30 |
| 1,1,2-Trichloroethane | 96 | | 103 | | 70-130 | 7 | | 30 |
| Tetrachloroethene | 104 | | 105 | | 70-130 | 1 | | 30 |
| Chlorobenzene | 97 | | 100 | | 70-130 | 3 | | 30 |
| Trichlorofluoromethane | 109 | | 110 | | 70-139 | 1 | | 30 |
| 1,2-Dichloroethane | 95 | | 100 | | 70-130 | 5 | | 30 |
| 1,1,1-Trichloroethane | 107 | | 109 | | 70-130 | 2 | | 30 |
| Bromodichloromethane | 103 | | 108 | | 70-130 | 5 | | 30 |
| trans-1,3-Dichloropropene | 92 | | 98 | | 70-130 | 6 | | 30 |
| cis-1,3-Dichloropropene | 100 | | 104 | | 70-130 | 4 | | 30 |
| 1,1-Dichloropropene | 99 | | 101 | | 70-130 | 2 | | 30 |
| Bromoform | 92 | | 99 | | 70-130 | 7 | | 30 |
| 1,1,2,2-Tetrachloroethane | 91 | | 98 | | 70-130 | 7 | | 30 |
| Benzene | 101 | | 103 | | 70-130 | 2 | | 30 |
| Toluene | 95 | | 97 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 99 | | 102 | | 70-130 | 3 | | 30 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2 | | | | | | | | |
| Chloromethane | 107 | | 106 | | 52-130 | 1 | | 30 |
| Bromomethane | 115 | | 112 | | 57-147 | 3 | | 30 |
| Vinyl chloride | 109 | | 109 | | 67-130 | 0 | | 30 |
| Chloroethane | 112 | | 108 | | 50-151 | 4 | | 30 |
| 1,1-Dichloroethene | 111 | | 112 | | 65-135 | 1 | | 30 |
| trans-1,2-Dichloroethene | 106 | | 110 | | 70-130 | 4 | | 30 |
| Trichloroethene | 112 | | 116 | | 70-130 | 4 | | 30 |
| 1,2-Dichlorobenzene | 98 | | 104 | | 70-130 | 6 | | 30 |
| 1,3-Dichlorobenzene | 99 | | 103 | | 70-130 | 4 | | 30 |
| 1,4-Dichlorobenzene | 100 | | 104 | | 70-130 | 4 | | 30 |
| Methyl tert butyl ether | 98 | | 104 | | 66-130 | 6 | | 30 |
| p/m-Xylene | 100 | | 103 | | 70-130 | 3 | | 30 |
| o-Xylene | 99 | | 102 | | 70-130 | 3 | | 30 |
| cis-1,2-Dichloroethene | 105 | | 108 | | 70-130 | 3 | | 30 |
| Dibromomethane | 100 | | 106 | | 70-130 | 6 | | 30 |
| 1,4-Dichlorobutane | 85 | | 90 | | 70-130 | 6 | | 30 |
| 1,2,3-Trichloropropane | 89 | | 97 | | 68-130 | 9 | | 30 |
| Styrene | 99 | | 103 | | 70-130 | 4 | | 30 |
| Dichlorodifluoromethane | 111 | | 113 | | 30-146 | 2 | | 30 |
| Acetone | 100 | | 106 | | 54-140 | 6 | | 30 |
| Carbon disulfide | 103 | | 104 | | 59-130 | 1 | | 30 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2 | | | | | | | | |
| 2-Butanone | 92 | | 99 | | 70-130 | 7 | | 30 |
| Vinyl acetate | 73 | | 78 | | 70-130 | 7 | | 30 |
| 4-Methyl-2-pentanone | 96 | | 107 | | 70-130 | 11 | | 30 |
| 2-Hexanone | 82 | | 92 | | 70-130 | 11 | | 30 |
| Ethyl methacrylate | 87 | | 92 | | 70-130 | 6 | | 30 |
| Acrolein | 115 | | 116 | | | 1 | | 30 |
| Acrylonitrile | 91 | | 97 | | 70-130 | 6 | | 30 |
| Bromochloromethane | 106 | | 112 | | 70-130 | 6 | | 30 |
| Tetrahydrofuran | 74 | | 79 | | 66-130 | 7 | | 30 |
| 2,2-Dichloropropane | 102 | | 103 | | 70-130 | 1 | | 30 |
| 1,2-Dibromoethane | 94 | | 101 | | 70-130 | 7 | | 30 |
| 1,3-Dichloropropane | 95 | | 100 | | 69-130 | 5 | | 30 |
| 1,1,1,2-Tetrachloroethane | 100 | | 104 | | 70-130 | 4 | | 30 |
| Bromobenzene | 99 | | 103 | | 70-130 | 4 | | 30 |
| n-Butylbenzene | 102 | | 104 | | 70-130 | 2 | | 30 |
| sec-Butylbenzene | 98 | | 102 | | 70-130 | 4 | | 30 |
| tert-Butylbenzene | 98 | | 101 | | 70-130 | 3 | | 30 |
| 1,3,5-Trichlorobenzene | 108 | | 114 | | 70-139 | 5 | | 30 |
| o-Chlorotoluene | 96 | | 101 | | 70-130 | 5 | | 30 |
| p-Chlorotoluene | 98 | | 101 | | 70-130 | 3 | | 30 |
| 1,2-Dibromo-3-chloropropane | 83 | | 109 | | 68-130 | 27 | | 30 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2 | | | | | | | | |
| Hexachlorobutadiene | 102 | | 108 | | 67-130 | 6 | | 30 |
| Isopropylbenzene | 98 | | 101 | | 70-130 | 3 | | 30 |
| p-Isopropyltoluene | 102 | | 105 | | 70-130 | 3 | | 30 |
| Naphthalene | 93 | | 102 | | 70-130 | 9 | | 30 |
| n-Propylbenzene | 99 | | 102 | | 70-130 | 3 | | 30 |
| 1,2,3-Trichlorobenzene | 100 | | 107 | | 70-130 | 7 | | 30 |
| 1,2,4-Trichlorobenzene | 100 | | 105 | | 70-130 | 5 | | 30 |
| 1,3,5-Trimethylbenzene | 95 | | 98 | | 70-130 | 3 | | 30 |
| 1,2,4-Trimethylbenzene | 101 | | 105 | | 70-130 | 4 | | 30 |
| trans-1,4-Dichloro-2-butene | 69 | Q | 76 | | 70-130 | 10 | | 30 |
| Ethyl ether | 101 | | 105 | | 67-130 | 4 | | 30 |
| Methyl Acetate | 109 | | 118 | | 65-130 | 8 | | 30 |
| Ethyl Acetate | 81 | | 89 | | 70-130 | 9 | | 30 |
| Cyclohexane | 94 | | 95 | | 70-130 | 1 | | 30 |
| Tert-Butyl Alcohol | 90 | | 102 | | 70-130 | 13 | | 30 |
| Ethyl-Tert-Butyl-Ether | 97 | | 101 | | 70-130 | 4 | | 30 |
| Tertiary-Amyl Methyl Ether | 103 | | 110 | | 70-130 | 7 | | 30 |
| 1,4-Dioxane | 106 | | 118 | | 65-136 | 11 | | 30 |
| Methyl cyclohexane | 108 | | 111 | | 70-130 | 3 | | 30 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 92 | | 93 | | 70-130 | 1 | | 30 |
| p-Diethylbenzene | 108 | | 112 | | 70-130 | 4 | | 30 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2 | | | | | | | | |
| 4-Ethyltoluene | 106 | | 110 | | 70-130 | 4 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 107 | | 113 | | 70-130 | 5 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 91 | | 92 | | 70-130 |
| Toluene-d8 | 96 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 99 | | 96 | | 70-130 |
| Dibromofluoromethane | 100 | | 99 | | 70-130 |

SEMIVOLATILES

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-01
Client ID: RC-WC-111213-01
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 10:37
Analyst: RC
Percent Solids: 52%

Date Collected: 11/12/13 12:02
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 260 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 320 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| Azobenzene | ND | | ug/kg | 320 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 380 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 890 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 260 | -- | 1 |
| Isophorone | ND | | ug/kg | 320 | -- | 1 |
| Naphthalene | ND | | ug/kg | 320 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 320 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 260 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 320 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 320 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01

Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 260 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 260 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 260 | -- | 1 |
| Fluorene | ND | | ug/kg | 320 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 260 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 700 | -- | 1 |
| Aniline | ND | | ug/kg | 380 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 320 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 380 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 640 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 320 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 700 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 450 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 830 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 260 | -- | 1 |
| Phenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 320 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 450 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1000 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01

Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 320 | -- | 1 |
| Carbazole | ND | | ug/kg | 320 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 6 | Q | 25-120 |
| Phenol-d6 | 20 | | 10-120 |
| Nitrobenzene-d5 | 58 | | 23-120 |
| 2-Fluorobiphenyl | 82 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 94 | | 18-120 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 RE
 Client ID: RC-WC-111213-01
 Sample Location: DEVENS
 Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 11/15/13 11:21
 Analyst: RC
 Percent Solids: 52%

Date Collected: 11/12/13 12:02
 Date Received: 11/13/13
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 250 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 320 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| Azobenzene | ND | | ug/kg | 320 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 380 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 890 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 250 | -- | 1 |
| Isophorone | ND | | ug/kg | 320 | -- | 1 |
| Naphthalene | ND | | ug/kg | 320 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 320 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 250 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 320 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 320 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 RE

Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 250 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 250 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 250 | -- | 1 |
| Fluorene | ND | | ug/kg | 320 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 250 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 700 | -- | 1 |
| Aniline | ND | | ug/kg | 380 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 320 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 380 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 640 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 320 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 700 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 440 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 830 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 250 | -- | 1 |
| Phenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 320 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 440 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1000 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 RE

Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 320 | -- | 1 |
| Carbazole | ND | | ug/kg | 320 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 4 | Q | 25-120 |
| Phenol-d6 | 24 | | 10-120 |
| Nitrobenzene-d5 | 65 | | 23-120 |
| 2-Fluorobiphenyl | 87 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 92 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-02
Client ID: RC-WC-111213-02
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 11:03
Analyst: RC
Percent Solids: 52%

Date Collected: 11/12/13 12:04
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 260 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 320 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| Azobenzene | ND | | ug/kg | 320 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 380 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 900 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 260 | -- | 1 |
| Isophorone | ND | | ug/kg | 320 | -- | 1 |
| Naphthalene | ND | | ug/kg | 320 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 320 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 260 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 320 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 320 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02
 Client ID: RC-WC-111213-02
 Sample Location: DEVENS

Date Collected: 11/12/13 12:04
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 260 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 260 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 260 | -- | 1 |
| Fluorene | ND | | ug/kg | 320 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 260 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 710 | -- | 1 |
| Aniline | ND | | ug/kg | 380 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 320 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 380 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 640 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 320 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 710 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 450 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 840 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 260 | -- | 1 |
| Phenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 320 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 450 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1000 | -- | 1 |



Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02
 Client ID: RC-WC-111213-02
 Sample Location: DEVENS

Date Collected: 11/12/13 12:04
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 320 | -- | 1 |
| Carbazole | ND | | ug/kg | 320 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 7 | Q | 25-120 |
| Phenol-d6 | 20 | | 10-120 |
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 85 | | 30-120 |
| 2,4,6-Tribromophenol | 0 | | 0-136 |
| 4-Terphenyl-d14 | 107 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-02 RE
Client ID: RC-WC-111213-02
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/15/13 11:49
Analyst: RC
Percent Solids: 52%

Date Collected: 11/12/13 12:04
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 260 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 320 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| Azobenzene | ND | | ug/kg | 320 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 380 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 900 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 260 | -- | 1 |
| Isophorone | ND | | ug/kg | 320 | -- | 1 |
| Naphthalene | ND | | ug/kg | 320 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 320 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 260 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 320 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 320 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 RE

Date Collected: 11/12/13 12:04

Client ID: RC-WC-111213-02

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 260 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 260 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 260 | -- | 1 |
| Fluorene | ND | | ug/kg | 320 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 260 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 710 | -- | 1 |
| Aniline | ND | | ug/kg | 380 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 320 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 380 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 640 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 320 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 710 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 450 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 840 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 260 | -- | 1 |
| Phenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 320 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 450 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1000 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 RE

Date Collected: 11/12/13 12:04

Client ID: RC-WC-111213-02

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 320 | -- | 1 |
| Carbazole | ND | | ug/kg | 320 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 5 | Q | 25-120 |
| Phenol-d6 | 28 | | 10-120 |
| Nitrobenzene-d5 | 69 | | 23-120 |
| 2-Fluorobiphenyl | 82 | | 30-120 |
| 2,4,6-Tribromophenol | 2 | | 0-136 |
| 4-Terphenyl-d14 | 93 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-03
Client ID: RC-WC-111213-03
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 11:29
Analyst: RC
Percent Solids: 49%

Date Collected: 11/12/13 12:06
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 270 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 200 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 340 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| Azobenzene | ND | | ug/kg | 340 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 400 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 940 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 270 | -- | 1 |
| Isophorone | ND | | ug/kg | 340 | -- | 1 |
| Naphthalene | ND | | ug/kg | 340 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 340 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 270 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 340 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 340 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03
 Client ID: RC-WC-111213-03
 Sample Location: DEVENS

Date Collected: 11/12/13 12:06
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 270 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Chrysene | ND | | ug/kg | 200 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 270 | -- | 1 |
| Anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 270 | -- | 1 |
| Fluorene | ND | | ug/kg | 340 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 200 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 270 | -- | 1 |
| Pyrene | ND | | ug/kg | 200 | -- | 1 |
| Biphenyl | ND | | ug/kg | 740 | -- | 1 |
| Aniline | ND | | ug/kg | 400 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 340 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 400 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 670 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 200 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 340 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 740 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 470 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1600 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 880 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 270 | -- | 1 |
| Phenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 340 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 470 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1100 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03
 Client ID: RC-WC-111213-03
 Sample Location: DEVENS

Date Collected: 11/12/13 12:06
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 340 | -- | 1 |
| Carbazole | ND | | ug/kg | 340 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 6 | Q | 25-120 |
| Phenol-d6 | 17 | | 10-120 |
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 88 | | 30-120 |
| 2,4,6-Tribromophenol | 0 | | 0-136 |
| 4-Terphenyl-d14 | 100 | | 18-120 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 RE
 Client ID: RC-WC-111213-03
 Sample Location: DEVENS
 Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 11/15/13 12:17
 Analyst: RC
 Percent Solids: 49%

Date Collected: 11/12/13 12:06
 Date Received: 11/13/13
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 260 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 200 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 330 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 330 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 330 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 330 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 330 | -- | 1 |
| Azobenzene | ND | | ug/kg | 330 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 330 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 330 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 400 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 330 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 330 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 930 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 260 | -- | 1 |
| Isophorone | ND | | ug/kg | 330 | -- | 1 |
| Naphthalene | ND | | ug/kg | 330 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 330 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 260 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 330 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 330 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 330 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 330 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 330 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 330 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 RE

Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 330 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 260 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Chrysene | ND | | ug/kg | 200 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 260 | -- | 1 |
| Anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 260 | -- | 1 |
| Fluorene | ND | | ug/kg | 330 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 200 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 260 | -- | 1 |
| Pyrene | ND | | ug/kg | 200 | -- | 1 |
| Biphenyl | ND | | ug/kg | 730 | -- | 1 |
| Aniline | ND | | ug/kg | 400 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 330 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 330 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 330 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 330 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 330 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 330 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 400 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 660 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 200 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 330 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 330 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 330 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 330 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 730 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 460 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1600 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 860 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 260 | -- | 1 |
| Phenol | ND | | ug/kg | 330 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 330 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 460 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 330 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1100 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 RE

Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 330 | -- | 1 |
| Carbazole | ND | | ug/kg | 330 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 2 | Q | 25-120 |
| Phenol-d6 | 17 | | 10-120 |
| Nitrobenzene-d5 | 59 | | 23-120 |
| 2-Fluorobiphenyl | 82 | | 30-120 |
| 2,4,6-Tribromophenol | 0 | | 0-136 |
| 4-Terphenyl-d14 | 92 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-04
Client ID: RC-WC-111213-04
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 11:55
Analyst: RC
Percent Solids: 48%

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 280 | -- | 1 |
| Benzidine | ND | | ug/kg | 1200 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 210 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 340 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| Azobenzene | ND | | ug/kg | 340 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 210 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 410 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 970 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 280 | -- | 1 |
| Isophorone | ND | | ug/kg | 340 | -- | 1 |
| Naphthalene | ND | | ug/kg | 340 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 340 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 280 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 340 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 340 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04
 Client ID: RC-WC-111213-04
 Sample Location: DEVENS

Date Collected: 11/12/13 12:08
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 210 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 280 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 210 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 210 | -- | 1 |
| Chrysene | ND | | ug/kg | 210 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 280 | -- | 1 |
| Anthracene | ND | | ug/kg | 210 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 280 | -- | 1 |
| Fluorene | ND | | ug/kg | 340 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 210 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 210 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 280 | -- | 1 |
| Pyrene | ND | | ug/kg | 210 | -- | 1 |
| Biphenyl | ND | | ug/kg | 760 | -- | 1 |
| Aniline | ND | | ug/kg | 410 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 340 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 410 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 690 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 210 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 340 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 760 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 480 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1600 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 900 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 280 | -- | 1 |
| Phenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 340 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 480 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1100 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04
 Client ID: RC-WC-111213-04
 Sample Location: DEVENS

Date Collected: 11/12/13 12:08
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 340 | -- | 1 |
| Carbazole | ND | | ug/kg | 340 | -- | 1 |
| Pyridine | ND | | ug/kg | 1400 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 7 | Q | 25-120 |
| Phenol-d6 | 26 | | 10-120 |
| Nitrobenzene-d5 | 64 | | 23-120 |
| 2-Fluorobiphenyl | 84 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 104 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-04 RE
Client ID: RC-WC-111213-04
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/15/13 12:45
Analyst: RC
Percent Solids: 48%

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 280 | -- | 1 |
| Benzidine | ND | | ug/kg | 1200 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 210 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 340 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| Azobenzene | ND | | ug/kg | 340 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 210 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 410 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 960 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 280 | -- | 1 |
| Isophorone | ND | | ug/kg | 340 | -- | 1 |
| Naphthalene | ND | | ug/kg | 340 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 340 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 280 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 340 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 340 | -- | 1 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-04 RE

Date Collected: 11/12/13 12:08

Client ID: RC-WC-111213-04

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 210 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 280 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 210 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 210 | -- | 1 |
| Chrysene | ND | | ug/kg | 210 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 280 | -- | 1 |
| Anthracene | ND | | ug/kg | 210 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 280 | -- | 1 |
| Fluorene | ND | | ug/kg | 340 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 210 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 210 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 280 | -- | 1 |
| Pyrene | ND | | ug/kg | 210 | -- | 1 |
| Biphenyl | ND | | ug/kg | 760 | -- | 1 |
| Aniline | ND | | ug/kg | 410 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 340 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 410 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 690 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 210 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 340 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 760 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 480 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1600 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 890 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 280 | -- | 1 |
| Phenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 340 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 480 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1100 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04 RE

Date Collected: 11/12/13 12:08

Client ID: RC-WC-111213-04

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 340 | -- | 1 |
| Carbazole | ND | | ug/kg | 340 | -- | 1 |
| Pyridine | ND | | ug/kg | 1400 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 8 | Q | 25-120 |
| Phenol-d6 | 35 | | 10-120 |
| Nitrobenzene-d5 | 62 | | 23-120 |
| 2-Fluorobiphenyl | 71 | | 30-120 |
| 2,4,6-Tribromophenol | 4 | | 0-136 |
| 4-Terphenyl-d14 | 86 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-05
Client ID: RC-WC-111213-05
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 12:20
Analyst: RC
Percent Solids: 53%

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 250 | -- | 1 |
| Benzidine | ND | | ug/kg | 1000 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 310 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| Azobenzene | ND | | ug/kg | 310 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 370 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 870 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 250 | -- | 1 |
| Isophorone | ND | | ug/kg | 310 | -- | 1 |
| Naphthalene | ND | | ug/kg | 310 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 310 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 250 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 310 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 310 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05
 Client ID: RC-WC-111213-05
 Sample Location: DEVENS

Date Collected: 11/12/13 12:10
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 250 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 250 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 250 | -- | 1 |
| Fluorene | ND | | ug/kg | 310 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 250 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 680 | -- | 1 |
| Aniline | ND | | ug/kg | 370 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 310 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 370 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 620 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 310 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 680 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 430 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 810 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 250 | -- | 1 |
| Phenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 310 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 430 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 990 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05
 Client ID: RC-WC-111213-05
 Sample Location: DEVENS

Date Collected: 11/12/13 12:10
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 310 | -- | 1 |
| Carbazole | ND | | ug/kg | 310 | -- | 1 |
| Pyridine | ND | | ug/kg | 1200 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 5 | Q | 25-120 |
| Phenol-d6 | 14 | | 10-120 |
| Nitrobenzene-d5 | 64 | | 23-120 |
| 2-Fluorobiphenyl | 86 | | 30-120 |
| 2,4,6-Tribromophenol | 0 | | 0-136 |
| 4-Terphenyl-d14 | 92 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-05 RE
Client ID: RC-WC-111213-05
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/15/13 13:13
Analyst: RC
Percent Solids: 53%

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 250 | -- | 1 |
| Benzidine | ND | | ug/kg | 1000 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 180 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 310 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| Azobenzene | ND | | ug/kg | 310 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 180 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 370 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 860 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 250 | -- | 1 |
| Isophorone | ND | | ug/kg | 310 | -- | 1 |
| Naphthalene | ND | | ug/kg | 310 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 310 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 250 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 310 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 310 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 RE

Date Collected: 11/12/13 12:10

Client ID: RC-WC-111213-05

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 180 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 250 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 180 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 180 | -- | 1 |
| Chrysene | ND | | ug/kg | 180 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 250 | -- | 1 |
| Anthracene | ND | | ug/kg | 180 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 250 | -- | 1 |
| Fluorene | ND | | ug/kg | 310 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 180 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 180 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 250 | -- | 1 |
| Pyrene | ND | | ug/kg | 180 | -- | 1 |
| Biphenyl | ND | | ug/kg | 680 | -- | 1 |
| Aniline | ND | | ug/kg | 370 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 310 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 370 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 620 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 180 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 310 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 680 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 430 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 800 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 250 | -- | 1 |
| Phenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 310 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 430 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 990 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 RE

Date Collected: 11/12/13 12:10

Client ID: RC-WC-111213-05

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 310 | -- | 1 |
| Carbazole | ND | | ug/kg | 310 | -- | 1 |
| Pyridine | ND | | ug/kg | 1200 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 4 | Q | 25-120 |
| Phenol-d6 | 23 | | 10-120 |
| Nitrobenzene-d5 | 63 | | 23-120 |
| 2-Fluorobiphenyl | 70 | | 30-120 |
| 2,4,6-Tribromophenol | 2 | | 0-136 |
| 4-Terphenyl-d14 | 82 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-06
Client ID: RC-WC-111213-06
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 12:46
Analyst: RC
Percent Solids: 52%

Date Collected: 11/12/13 12:12
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 250 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 320 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 320 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 320 | -- | 1 |
| Azobenzene | ND | | ug/kg | 320 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 380 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 320 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 890 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 250 | -- | 1 |
| Isophorone | ND | | ug/kg | 320 | -- | 1 |
| Naphthalene | ND | | ug/kg | 320 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 320 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 250 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 320 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 320 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 320 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 320 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06
 Client ID: RC-WC-111213-06
 Sample Location: DEVENS

Date Collected: 11/12/13 12:12
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 320 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 250 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 250 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 250 | -- | 1 |
| Fluorene | ND | | ug/kg | 320 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 250 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 700 | -- | 1 |
| Aniline | ND | | ug/kg | 380 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 320 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 320 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 380 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 640 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 320 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 700 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 440 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 830 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 250 | -- | 1 |
| Phenol | ND | | ug/kg | 320 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 320 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 440 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 320 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1000 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06
 Client ID: RC-WC-111213-06
 Sample Location: DEVENS

Date Collected: 11/12/13 12:12
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 320 | -- | 1 |
| Carbazole | ND | | ug/kg | 320 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 7 | Q | 25-120 |
| Phenol-d6 | 21 | | 10-120 |
| Nitrobenzene-d5 | 67 | | 23-120 |
| 2-Fluorobiphenyl | 83 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 86 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-06 RE
Client ID: RC-WC-111213-06
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/15/13 13:41
Analyst: RC
Percent Solids: 52%

Date Collected: 11/12/13 12:12
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 250 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 310 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| Azobenzene | ND | | ug/kg | 310 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 380 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 880 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 250 | -- | 1 |
| Isophorone | ND | | ug/kg | 310 | -- | 1 |
| Naphthalene | ND | | ug/kg | 310 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 310 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 250 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 310 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 310 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 RE

Date Collected: 11/12/13 12:12

Client ID: RC-WC-111213-06

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 250 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 250 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 250 | -- | 1 |
| Fluorene | ND | | ug/kg | 310 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 250 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 690 | -- | 1 |
| Aniline | ND | | ug/kg | 380 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 310 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 380 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 630 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 310 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 690 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 440 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 820 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 250 | -- | 1 |
| Phenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 310 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 440 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1000 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 RE

Date Collected: 11/12/13 12:12

Client ID: RC-WC-111213-06

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 310 | -- | 1 |
| Carbazole | ND | | ug/kg | 310 | -- | 1 |
| Pyridine | ND | | ug/kg | 1200 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 5 | Q | 25-120 |
| Phenol-d6 | 29 | | 10-120 |
| Nitrobenzene-d5 | 69 | | 23-120 |
| 2-Fluorobiphenyl | 77 | | 30-120 |
| 2,4,6-Tribromophenol | 2 | | 0-136 |
| 4-Terphenyl-d14 | 90 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-07
Client ID: RC-WC-111213-07
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 13:12
Analyst: RC
Percent Solids: 53%

Date Collected: 11/12/13 12:14
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 250 | -- | 1 |
| Benzidine | ND | | ug/kg | 1000 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 190 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 310 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 310 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 310 | -- | 1 |
| Azobenzene | ND | | ug/kg | 310 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 370 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 310 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 870 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 250 | -- | 1 |
| Isophorone | ND | | ug/kg | 310 | -- | 1 |
| Naphthalene | ND | | ug/kg | 310 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 310 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 250 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 310 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 310 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 310 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 310 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07
 Client ID: RC-WC-111213-07
 Sample Location: DEVENS

Date Collected: 11/12/13 12:14
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 310 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 250 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 190 | -- | 1 |
| Chrysene | ND | | ug/kg | 190 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 250 | -- | 1 |
| Anthracene | ND | | ug/kg | 190 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 250 | -- | 1 |
| Fluorene | ND | | ug/kg | 310 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 190 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 190 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 250 | -- | 1 |
| Pyrene | ND | | ug/kg | 190 | -- | 1 |
| Biphenyl | ND | | ug/kg | 680 | -- | 1 |
| Aniline | ND | | ug/kg | 370 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 310 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 310 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 370 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 620 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 190 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 310 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 680 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 430 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 810 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 250 | -- | 1 |
| Phenol | ND | | ug/kg | 310 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 310 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 430 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 310 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 990 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07
 Client ID: RC-WC-111213-07
 Sample Location: DEVENS

Date Collected: 11/12/13 12:14
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 310 | -- | 1 |
| Carbazole | ND | | ug/kg | 310 | -- | 1 |
| Pyridine | ND | | ug/kg | 1200 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 6 | Q | 25-120 |
| Phenol-d6 | 17 | | 10-120 |
| Nitrobenzene-d5 | 71 | | 23-120 |
| 2-Fluorobiphenyl | 87 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 104 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-07 RE
Client ID: RC-WC-111213-07
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/15/13 14:09
Analyst: RC
Percent Solids: 53%

Date Collected: 11/12/13 12:14
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 240 | -- | 1 |
| Benzidine | ND | | ug/kg | 1000 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 300 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 180 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 300 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 300 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 300 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 300 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 300 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 300 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 300 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 300 | -- | 1 |
| Azobenzene | ND | | ug/kg | 300 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 180 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 300 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 300 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 360 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 300 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 300 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 850 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 240 | -- | 1 |
| Isophorone | ND | | ug/kg | 300 | -- | 1 |
| Naphthalene | ND | | ug/kg | 300 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 300 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 240 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 300 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 300 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 300 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 300 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 300 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 300 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 RE

Date Collected: 11/12/13 12:14

Client ID: RC-WC-111213-07

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 300 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 180 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 240 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 180 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 180 | -- | 1 |
| Chrysene | ND | | ug/kg | 180 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 240 | -- | 1 |
| Anthracene | ND | | ug/kg | 180 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 240 | -- | 1 |
| Fluorene | ND | | ug/kg | 300 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 180 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 180 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 240 | -- | 1 |
| Pyrene | ND | | ug/kg | 180 | -- | 1 |
| Biphenyl | ND | | ug/kg | 670 | -- | 1 |
| Aniline | ND | | ug/kg | 360 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 300 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 300 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 300 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 300 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 300 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 300 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 360 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 610 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 180 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 300 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 300 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 300 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 300 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 670 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 420 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1500 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 790 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 240 | -- | 1 |
| Phenol | ND | | ug/kg | 300 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 300 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 420 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 300 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 970 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 RE

Date Collected: 11/12/13 12:14

Client ID: RC-WC-111213-07

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 300 | -- | 1 |
| Carbazole | ND | | ug/kg | 300 | -- | 1 |
| Pyridine | ND | | ug/kg | 1200 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 3 | Q | 25-120 |
| Phenol-d6 | 21 | | 10-120 |
| Nitrobenzene-d5 | 67 | | 23-120 |
| 2-Fluorobiphenyl | 78 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 95 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-08
Client ID: RC-WC-111213-08
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/14/13 13:37
Analyst: RC
Percent Solids: 49%

Date Collected: 11/12/13 12:16
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/13/13 21:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 270 | -- | 1 |
| Benzidine | ND | | ug/kg | 1200 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 200 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 340 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 340 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 340 | -- | 1 |
| Azobenzene | ND | | ug/kg | 340 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 410 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 340 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 950 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 270 | -- | 1 |
| Isophorone | ND | | ug/kg | 340 | -- | 1 |
| Naphthalene | ND | | ug/kg | 340 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 340 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 270 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 340 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 340 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 340 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 340 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08
 Client ID: RC-WC-111213-08
 Sample Location: DEVENS

Date Collected: 11/12/13 12:16
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 340 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 270 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Chrysene | ND | | ug/kg | 200 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 270 | -- | 1 |
| Anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 270 | -- | 1 |
| Fluorene | ND | | ug/kg | 340 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 200 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 270 | -- | 1 |
| Pyrene | ND | | ug/kg | 200 | -- | 1 |
| Biphenyl | ND | | ug/kg | 750 | -- | 1 |
| Aniline | ND | | ug/kg | 410 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 340 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 340 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 410 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 680 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 200 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 340 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 750 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 480 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1600 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 880 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 270 | -- | 1 |
| Phenol | ND | | ug/kg | 340 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 340 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 480 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 340 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1100 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08
 Client ID: RC-WC-111213-08
 Sample Location: DEVENS

Date Collected: 11/12/13 12:16
 Date Received: 11/13/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 340 | -- | 1 |
| Carbazole | ND | | ug/kg | 340 | -- | 1 |
| Pyridine | ND | | ug/kg | 1400 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 7 | Q | 25-120 |
| Phenol-d6 | 21 | | 10-120 |
| Nitrobenzene-d5 | 66 | | 23-120 |
| 2-Fluorobiphenyl | 87 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 99 | | 18-120 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-08 RE
Client ID: RC-WC-111213-08
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/15/13 14:37
Analyst: RC
Percent Solids: 49%

Date Collected: 11/12/13 12:16
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Acenaphthene | ND | | ug/kg | 270 | -- | 1 |
| Benzidine | ND | | ug/kg | 1100 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| Hexachlorobenzene | ND | | ug/kg | 200 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 330 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 330 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 330 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 330 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 330 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 330 | -- | 1 |
| Azobenzene | ND | | ug/kg | 330 | -- | 1 |
| Fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 330 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 330 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 400 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 330 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 330 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 930 | -- | 1 |
| Hexachloroethane | ND | | ug/kg | 270 | -- | 1 |
| Isophorone | ND | | ug/kg | 330 | -- | 1 |
| Naphthalene | ND | | ug/kg | 330 | -- | 1 |
| Nitrobenzene | ND | | ug/kg | 330 | -- | 1 |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 270 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 330 | -- | 1 |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 330 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 330 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 330 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 330 | -- | 1 |
| Diethyl phthalate | ND | | ug/kg | 330 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 RE

Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 330 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 270 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 200 | -- | 1 |
| Chrysene | ND | | ug/kg | 200 | -- | 1 |
| Acenaphthylene | ND | | ug/kg | 270 | -- | 1 |
| Anthracene | ND | | ug/kg | 200 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 270 | -- | 1 |
| Fluorene | ND | | ug/kg | 330 | -- | 1 |
| Phenanthrene | ND | | ug/kg | 200 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 200 | -- | 1 |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 270 | -- | 1 |
| Pyrene | ND | | ug/kg | 200 | -- | 1 |
| Biphenyl | ND | | ug/kg | 730 | -- | 1 |
| Aniline | ND | | ug/kg | 400 | -- | 1 |
| 4-Chloroaniline | ND | | ug/kg | 330 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/kg | 330 | -- | 1 |
| 2-Nitroaniline | ND | | ug/kg | 330 | -- | 1 |
| 3-Nitroaniline | ND | | ug/kg | 330 | -- | 1 |
| 4-Nitroaniline | ND | | ug/kg | 330 | -- | 1 |
| Dibenzofuran | ND | | ug/kg | 330 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 400 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 660 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 200 | -- | 1 |
| P-Chloro-M-Cresol | ND | | ug/kg | 330 | -- | 1 |
| 2-Chlorophenol | ND | | ug/kg | 330 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 330 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 330 | -- | 1 |
| 2-Nitrophenol | ND | | ug/kg | 730 | -- | 1 |
| 4-Nitrophenol | ND | | ug/kg | 460 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1600 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 860 | -- | 1 |
| Pentachlorophenol | ND | | ug/kg | 270 | -- | 1 |
| Phenol | ND | | ug/kg | 330 | -- | 1 |
| 2-Methylphenol | ND | | ug/kg | 330 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 460 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 330 | -- | 1 |
| Benzoic Acid | ND | | ug/kg | 1100 | -- | 1 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 RE

Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08

Date Received: 11/13/13

Sample Location: DEVENS

Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|-----|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Benzyl Alcohol | ND | | ug/kg | 330 | -- | 1 |
| Carbazole | ND | | ug/kg | 330 | -- | 1 |
| Pyridine | ND | | ug/kg | 1300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol | 2 | Q | 25-120 |
| Phenol-d6 | 18 | | 10-120 |
| Nitrobenzene-d5 | 71 | | 23-120 |
| 2-Fluorobiphenyl | 81 | | 30-120 |
| 2,4,6-Tribromophenol | 1 | | 0-136 |
| 4-Terphenyl-d14 | 90 | | 18-120 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 11/15/13 09:57
 Analyst: RC

Extraction Method: EPA 3546
 Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-----|-----|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651875-1 | | | | | |
| Acenaphthene | ND | | ug/kg | 130 | -- |
| Benzidine | ND | | ug/kg | 560 | -- |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 160 | -- |
| Hexachlorobenzene | ND | | ug/kg | 99 | -- |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | -- |
| 2-Chloronaphthalene | ND | | ug/kg | 160 | -- |
| 1,2-Dichlorobenzene | ND | | ug/kg | 160 | -- |
| 1,3-Dichlorobenzene | ND | | ug/kg | 160 | -- |
| 1,4-Dichlorobenzene | ND | | ug/kg | 160 | -- |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 160 | -- |
| 2,4-Dinitrotoluene | ND | | ug/kg | 160 | -- |
| 2,6-Dinitrotoluene | ND | | ug/kg | 160 | -- |
| Azobenzene | ND | | ug/kg | 160 | -- |
| Fluoranthene | ND | | ug/kg | 99 | -- |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 160 | -- |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 160 | -- |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 200 | -- |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 160 | -- |
| Hexachlorobutadiene | ND | | ug/kg | 160 | -- |
| Hexachlorocyclopentadiene | ND | | ug/kg | 460 | -- |
| Hexachloroethane | ND | | ug/kg | 130 | -- |
| Isophorone | ND | | ug/kg | 160 | -- |
| Naphthalene | ND | | ug/kg | 160 | -- |
| Nitrobenzene | ND | | ug/kg | 160 | -- |
| NitrosoDiPhenylAmine(NDPA)/DPA | ND | | ug/kg | 130 | -- |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 160 | -- |
| Bis(2-Ethylhexyl)phthalate | ND | | ug/kg | 160 | -- |
| Butyl benzyl phthalate | ND | | ug/kg | 160 | -- |
| Di-n-butylphthalate | ND | | ug/kg | 160 | -- |
| Di-n-octylphthalate | ND | | ug/kg | 160 | -- |
| Diethyl phthalate | ND | | ug/kg | 160 | -- |



Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 11/15/13 09:57
 Analyst: RC

Extraction Method: EPA 3546
 Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-----|-----|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651875-1 | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 160 | -- |
| Benzo(a)anthracene | ND | | ug/kg | 99 | -- |
| Benzo(a)pyrene | ND | | ug/kg | 130 | -- |
| Benzo(b)fluoranthene | ND | | ug/kg | 99 | -- |
| Benzo(k)fluoranthene | ND | | ug/kg | 99 | -- |
| Chrysene | ND | | ug/kg | 99 | -- |
| Acenaphthylene | ND | | ug/kg | 130 | -- |
| Anthracene | ND | | ug/kg | 99 | -- |
| Benzo(ghi)perylene | ND | | ug/kg | 130 | -- |
| Fluorene | ND | | ug/kg | 160 | -- |
| Phenanthrene | ND | | ug/kg | 99 | -- |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 99 | -- |
| Indeno(1,2,3-cd)Pyrene | ND | | ug/kg | 130 | -- |
| Pyrene | ND | | ug/kg | 99 | -- |
| Biphenyl | ND | | ug/kg | 360 | -- |
| Aniline | ND | | ug/kg | 200 | -- |
| 4-Chloroaniline | ND | | ug/kg | 160 | -- |
| 1-Methylnaphthalene | ND | | ug/kg | 160 | -- |
| 2-Nitroaniline | ND | | ug/kg | 160 | -- |
| 3-Nitroaniline | ND | | ug/kg | 160 | -- |
| 4-Nitroaniline | ND | | ug/kg | 160 | -- |
| Dibenzofuran | ND | | ug/kg | 160 | -- |
| 2-Methylnaphthalene | ND | | ug/kg | 200 | -- |
| n-Nitrosodimethylamine | ND | | ug/kg | 330 | -- |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 99 | -- |
| P-Chloro-M-Cresol | ND | | ug/kg | 160 | -- |
| 2-Chlorophenol | ND | | ug/kg | 160 | -- |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | -- |
| 2,4-Dimethylphenol | ND | | ug/kg | 160 | -- |
| 2-Nitrophenol | ND | | ug/kg | 360 | -- |
| 4-Nitrophenol | ND | | ug/kg | 230 | -- |



Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 11/15/13 09:57
 Analyst: RC

Extraction Method: EPA 3546
 Extraction Date: 11/14/13 21:44

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-----|-----|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651875-1 | | | | | |
| 2,4-Dinitrophenol | ND | | ug/kg | 790 | -- |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 430 | -- |
| Pentachlorophenol | ND | | ug/kg | 130 | -- |
| Phenol | ND | | ug/kg | 160 | -- |
| 2-Methylphenol | ND | | ug/kg | 160 | -- |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 230 | -- |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 160 | -- |
| Benzoic Acid | ND | | ug/kg | 530 | -- |
| Benzyl Alcohol | ND | | ug/kg | 160 | -- |
| Carbazole | ND | | ug/kg | 160 | -- |
| Pyridine | ND | | ug/kg | 660 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|----------------------|-----------|-----------|------------------------|
| 2-Fluorophenol | 71 | | 25-120 |
| Phenol-d6 | 70 | | 10-120 |
| Nitrobenzene-d5 | 62 | | 23-120 |
| 2-Fluorobiphenyl | 65 | | 30-120 |
| 2,4,6-Tribromophenol | 74 | | 0-136 |
| 4-Terphenyl-d14 | 85 | | 18-120 |

Lab Control Sample Analysis **Batch Quality Control**

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3 | | | | | | | | |
| Acenaphthene | 90 | | 89 | | 31-137 | 1 | | 50 |
| Benzidine | 31 | | 16 | | 10-66 | 64 | Q | 50 |
| 1,2,4-Trichlorobenzene | 78 | | 76 | | 38-107 | 3 | | 50 |
| Hexachlorobenzene | 89 | | 84 | | 40-140 | 6 | | 50 |
| Bis(2-chloroethyl)ether | 70 | | 70 | | 40-140 | 0 | | 50 |
| 2-Chloronaphthalene | 82 | | 83 | | 40-140 | 1 | | 50 |
| 1,2-Dichlorobenzene | 73 | | 72 | | 40-140 | 1 | | 50 |
| 1,3-Dichlorobenzene | 69 | | 71 | | 40-140 | 3 | | 50 |
| 1,4-Dichlorobenzene | 70 | | 70 | | 28-104 | 0 | | 50 |
| 3,3'-Dichlorobenzidine | 82 | | 61 | | 40-140 | 29 | | 50 |
| 2,4-Dinitrotoluene | 100 | Q | 92 | Q | 28-89 | 8 | | 50 |
| 2,6-Dinitrotoluene | 88 | | 84 | | 40-140 | 5 | | 50 |
| Azobenzene | 100 | | 95 | | 40-140 | 5 | | 50 |
| Fluoranthene | 101 | | 93 | | 40-140 | 8 | | 50 |
| 4-Chlorophenyl phenyl ether | 93 | | 89 | | 40-140 | 4 | | 50 |
| 4-Bromophenyl phenyl ether | 93 | | 89 | | 40-140 | 4 | | 50 |
| Bis(2-chloroisopropyl)ether | 76 | | 74 | | 40-140 | 3 | | 50 |
| Bis(2-chloroethoxy)methane | 77 | | 77 | | 40-117 | 0 | | 50 |
| Hexachlorobutadiene | 76 | | 74 | | 40-140 | 3 | | 50 |
| Hexachlorocyclopentadiene | 79 | | 77 | | 40-140 | 3 | | 50 |
| Hexachloroethane | 70 | | 70 | | 40-140 | 0 | | 50 |

Lab Control Sample Analysis **Batch Quality Control**

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3 | | | | | | | | |
| Isophorone | 70 | | 72 | | 40-140 | 3 | | 50 |
| Naphthalene | 78 | | 77 | | 40-140 | 1 | | 50 |
| Nitrobenzene | 82 | | 80 | | 40-140 | 2 | | 50 |
| NitrosoDiPhenylAmine(NDPA)/DPA | 97 | | 90 | | 36-157 | 7 | | 50 |
| n-Nitrosodi-n-propylamine | 73 | | 73 | | 32-121 | 0 | | 50 |
| Bis(2-Ethylhexyl)phthalate | 109 | | 94 | | 40-140 | 15 | | 50 |
| Butyl benzyl phthalate | 99 | | 93 | | 40-140 | 6 | | 50 |
| Di-n-butylphthalate | 99 | | 90 | | 40-140 | 10 | | 50 |
| Di-n-octylphthalate | 111 | | 100 | | 40-140 | 10 | | 50 |
| Diethyl phthalate | 95 | | 88 | | 40-140 | 8 | | 50 |
| Dimethyl phthalate | 96 | | 90 | | 40-140 | 6 | | 50 |
| Benzo(a)anthracene | 108 | | 96 | | 40-140 | 12 | | 50 |
| Benzo(a)pyrene | 106 | | 97 | | 40-140 | 9 | | 50 |
| Benzo(b)fluoranthene | 117 | | 104 | | 40-140 | 12 | | 50 |
| Benzo(k)fluoranthene | 87 | | 80 | | 40-140 | 8 | | 50 |
| Chrysene | 100 | | 91 | | 40-140 | 9 | | 50 |
| Acenaphthylene | 85 | | 84 | | 40-140 | 1 | | 50 |
| Anthracene | 102 | | 94 | | 40-140 | 8 | | 50 |
| Benzo(ghi)perylene | 95 | | 90 | | 40-140 | 5 | | 50 |
| Fluorene | 96 | | 92 | | 40-140 | 4 | | 50 |
| Phenanthrene | 103 | | 95 | | 40-140 | 8 | | 50 |

Lab Control Sample Analysis **Batch Quality Control**

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3 | | | | | | | | |
| Dibenzo(a,h)anthracene | 99 | | 93 | | 40-140 | 6 | | 50 |
| Indeno(1,2,3-cd)Pyrene | 96 | | 90 | | 40-140 | 6 | | 50 |
| Pyrene | 94 | | 87 | | 35-142 | 8 | | 50 |
| Biphenyl | 89 | | 89 | | 54-104 | 0 | | 50 |
| Aniline | 56 | | 46 | | 40-140 | 20 | | 50 |
| 4-Chloroaniline | 48 | | 34 | Q | 40-140 | 34 | | 50 |
| 1-Methylnaphthalene | 82 | | 82 | | 26-130 | 0 | | 50 |
| 2-Nitroaniline | 92 | | 87 | | 47-134 | 6 | | 50 |
| 3-Nitroaniline | 63 | | 47 | | 26-129 | 29 | | 50 |
| 4-Nitroaniline | 103 | | 95 | | 41-125 | 8 | | 50 |
| Dibenzofuran | 92 | | 90 | | 40-140 | 2 | | 50 |
| 2-Methylnaphthalene | 79 | | 79 | | 40-140 | 0 | | 50 |
| n-Nitrosodimethylamine | 69 | | 71 | | 22-100 | 3 | | 50 |
| 2,4,6-Trichlorophenol | 92 | | 90 | | 30-130 | 2 | | 50 |
| P-Chloro-M-Cresol | 94 | | 91 | | 26-103 | 3 | | 50 |
| 2-Chlorophenol | 80 | | 77 | | 25-102 | 4 | | 50 |
| 2,4-Dichlorophenol | 91 | | 93 | | 30-130 | 2 | | 50 |
| 2,4-Dimethylphenol | 84 | | 88 | | 30-130 | 5 | | 50 |
| 2-Nitrophenol | 75 | | 75 | | 30-130 | 0 | | 50 |
| 4-Nitrophenol | 106 | | 96 | | 11-114 | 10 | | 50 |
| 2,4-Dinitrophenol | 60 | | 68 | | 4-130 | 13 | | 50 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3 | | | | | | | | |
| 4,6-Dinitro-o-cresol | 90 | | 87 | | 10-130 | 3 | | 50 |
| Pentachlorophenol | 109 | | 102 | | 17-109 | 7 | | 50 |
| Phenol | 83 | | 81 | | 26-90 | 2 | | 50 |
| 2-Methylphenol | 83 | | 84 | | 30-130 | 1 | | 50 |
| 3-Methylphenol/4-Methylphenol | 82 | | 82 | | 30-130 | 0 | | 50 |
| 2,4,5-Trichlorophenol | 94 | | 94 | | 30-130 | 0 | | 50 |
| Benzoic Acid | 35 | | 40 | | 10-110 | 13 | | 50 |
| Benzyl Alcohol | 80 | | 79 | | 40-140 | 1 | | 50 |
| Carbazole | 101 | | 92 | | 54-128 | 9 | | 50 |
| Pyridine | 46 | | 46 | | 10-93 | 0 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|----------------------|------------------|------|-------------------|------|------------------------|
| 2-Fluorophenol | 73 | | 75 | | 25-120 |
| Phenol-d6 | 78 | | 78 | | 10-120 |
| Nitrobenzene-d5 | 73 | | 74 | | 23-120 |
| 2-Fluorobiphenyl | 78 | | 81 | | 30-120 |
| 2,4,6-Tribromophenol | 97 | | 92 | | 0-136 |
| 4-Terphenyl-d14 | 93 | | 86 | | 18-120 |

PETROLEUM HYDROCARBONS

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-01
Client ID: RC-WC-111213-01
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/14/13 23:26
Analyst: AR
Percent Solids: 52%

Date Collected: 11/12/13 12:02
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 66700 | | ug/kg | 62500 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 52 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-02
Client ID: RC-WC-111213-02
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/14/13 23:57
Analyst: AR
Percent Solids: 52%

Date Collected: 11/12/13 12:04
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 82900 | | ug/kg | 63300 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 63 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-03
Client ID: RC-WC-111213-03
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/15/13 00:28
Analyst: AR
Percent Solids: 49%

Date Collected: 11/12/13 12:06
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 74300 | | ug/kg | 64600 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 62 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-04
Client ID: RC-WC-111213-04
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/15/13 00:59
Analyst: AR
Percent Solids: 48%

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 133000 | | ug/kg | 68700 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 68 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-05
Client ID: RC-WC-111213-05
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/15/13 01:30
Analyst: AR
Percent Solids: 53%

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 96500 | | ug/kg | 59800 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 61 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-06
Client ID: RC-WC-111213-06
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/15/13 02:00
Analyst: AR
Percent Solids: 52%

Date Collected: 11/12/13 12:12
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 132000 | | ug/kg | 61500 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 62 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-07
Client ID: RC-WC-111213-07
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/15/13 02:31
Analyst: AR
Percent Solids: 53%

Date Collected: 11/12/13 12:14
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 98800 | | ug/kg | 61700 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 65 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-08
Client ID: RC-WC-111213-08
Sample Location: DEVENS
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 11/15/13 03:02
Analyst: AR
Percent Solids: 49%

Date Collected: 11/12/13 12:16
Date Received: 11/13/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|-------|-----|-----------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab | | | | | | |
| TPH | 919000 | | ug/kg | 65800 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-------------|------------|-----------|---------------------|
| o-Terphenyl | 64 | | 40-140 |

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**Method Blank Analysis**
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 11/14/13 21:53
Analyst: AR

Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-------|-----|
| Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-08 Batch: WG651786-1 | | | | | |
| TPH | ND | | ug/kg | 32100 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|------------------------|
| o-Terphenyl | 96 | | 40-140 |

Lab Control Sample Analysis Batch Quality Control

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-08 Batch: WG651786-2 | | | | | | | | |
| TPH | 76 | | - | | 40-140 | - | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| o-Terphenyl | 88 | | | | 40-140 |

Lab Duplicate Analysis Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG651786-3 QC Sample: L1323043-01 Client ID: RC-WC-111213-01 | | | | | | |
| TPH | 66700 | 97500 | ug/kg | 38 | | 40 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|-----------|-----------|---------------------|
| o-Terphenyl | 52 | | 65 | | 40-140 |

INORGANICS & MISCELLANEOUS

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01
Client ID: RC-WC-111213-01
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:02
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 52.1 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-02
Client ID: RC-WC-111213-02
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:04
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 51.8 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-03
Client ID: RC-WC-111213-03
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:06
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 48.8 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-04
Client ID: RC-WC-111213-04
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 48.1 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-05
Client ID: RC-WC-111213-05
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 52.8 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-06
Client ID: RC-WC-111213-06
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:12
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 51.8 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-07
Client ID: RC-WC-111213-07
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:14
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 53.1 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**SAMPLE RESULTS**

Lab ID: L1323043-08
Client ID: RC-WC-111213-08
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:16
Date Received: 11/13/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 48.7 | | % | 0.100 | NA | 1 | - | 11/14/13 02:03 | 30,2540G | RT |



Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG651596-1 QC Sample: L1323043-01 Client ID: RC-WC-111213-01 | | | | | | |
| Solids, Total | 52.1 | 46.6 | % | 11 | | 20 |

Project Name: AC001.005

Lab Number: L1323043

Project Number: AC001.005

Report Date: 11/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|------------------------------|--------|-----|---------------|------|--------|---------------------------------|
| L1323043-01A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-01B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-01C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |
| L1323043-02A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-02B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-02C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |
| L1323043-03A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-03B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-03C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |
| L1323043-04A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-04B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-04C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |
| L1323043-05A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-05B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-05C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |
| L1323043-06A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-06B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-06C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |
| L1323043-07A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-07B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-07C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |
| L1323043-08A | Vial MeOH preserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |
| L1323043-08B | Vial Large Septa unpreserved | A | N/A | 3.3 | Y | Absent | 8260H(14) |

*Values in parentheses indicate holding time in days



Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1323043**Report Date:** 11/15/13**Container Information**

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|---------------------------------|
| L1323043-08C | Amber 250ml unpreserved | A | N/A | 3.3 | Y | Absent | 8270TCL(14),TS(7),TPH-DRO-D(14) |

*Values in parentheses indicate holding time in days



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report



Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: AC001.005**Lab Number:** L1323043**Project Number:** AC001.005**Report Date:** 11/15/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 124 of 127 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisison on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.



CHAIN OF CUSTODY

PAGE 1 OF 1

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way Ste 307
Holyoke, MA 01040

Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: AC001.005

Project Location: Deven's

Project #: AC001.005

Project Manager: R. Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)

Date Due:

24 hr

Date Rec'd in Lab: 11/13/13

ALPHA Job #: 1323043

Report Information - Data Deliverables

☒ ADEX☒ EMAIL

Billing Information

☐ Same as Client info

PO #:

Regulatory Requirements & Project Information Requirements

- ☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
- ☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
- ☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
- ☐ Yes ☒ No NPDES RGP
- ☐ Other State /Fed Program Criteria

| ANALYSIS | | SAMPLE INFO | |
|---|--|------------------------------------|--|
| VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2 | | Filtration | |
| SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH | | <input type="checkbox"/> Field | |
| METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 | | <input type="checkbox"/> Lab to do | |
| METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAB | | Preservation | |
| EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | | <input type="checkbox"/> Lab to do | |
| VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | | | |
| PCB <input type="checkbox"/> PEST | | | |
| TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | | | |

8270 TPH
TCLP VOC
8260H

TOTAL # BOTTLES

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler Initials |
|--------------------------------|-------------------|------------|-------|---------------|------------------|
| | | Date | Time | | |
| 23045 | 1 RC-WC-111213-01 | 11/12/13 | 12:02 | Seal | WJB |
| | 2 RC-WC-111213-02 | | 12:04 | | |
| | 3 RC-WC-111213-03 | | 12:06 | | |
| | 4 RC-WC-111213-04 | | 12:08 | | |
| | 5 RC-WC-111213-05 | | 12:10 | | |
| | 6 RC-WC-111213-06 | | 12:12 | | |
| | 7 RC-WC-111213-07 | | 12:14 | | |
| | 8 RC-WC-111213-08 | | 12:16 | | |

Container Type

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

AAV
AAF

Relinquished By:

Date/Time

Received By:

Date/Time

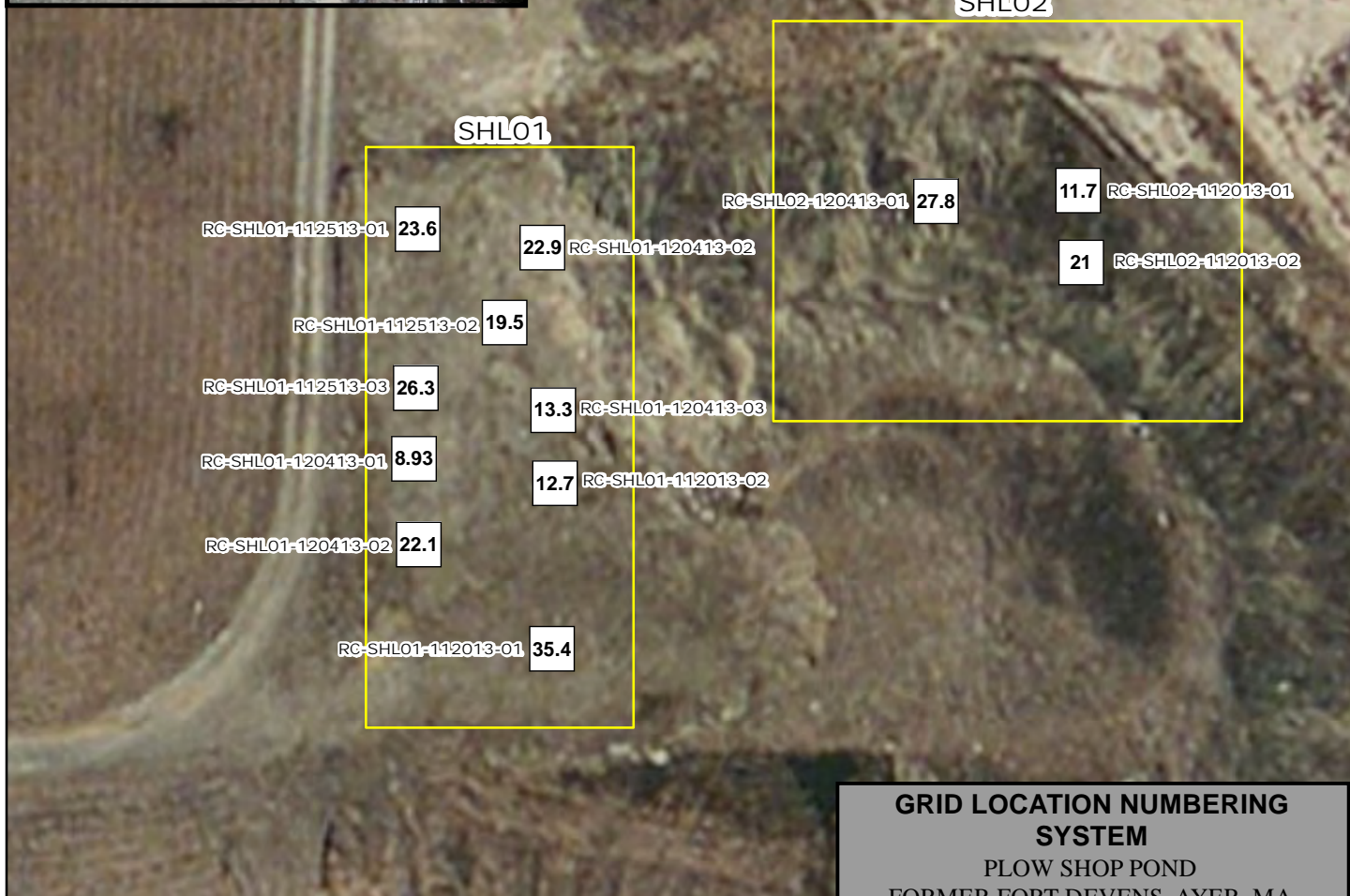
All samples submitted are subject to
Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

APPENDIX G

Staging Area Analytical Data
(See CD Included Separately)

GENERAL SAMPLE LOCATIONS:



Legend

RC-SHL01-120413-02 Confirmation Sample ID

22.1 Arsenic Sample Result (mg/kg)

Confirmation Sample Location (Approx.)

Stockpile Area (Approx.)

**GRID LOCATION NUMBERING
SYSTEM**

PLOW SHOP POND
FORMER FORT DEVENS, AYER, MA

0 25 50 100
Feet



SOVEREIGN CONSULTING INC.
16 CHESTNUT STREET, SUITE 520
FOXBOROUGH, MA 02035
Tel: 508-339-3200 Fax: 508-339-3248
www.sovcon.com

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1323703 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | AC001.005 |
| Project Number: | AC001.005 |
| Report Date: | 11/25/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|--------------------|----------------------------|---------------------------------|
| L1323703-01 | RC-SHL01-112013-01 | DEVENS | 11/20/13 12:40 |
| L1323703-02 | RC-SHL01-112013-02 | DEVENS | 11/20/13 13:00 |
| L1323703-03 | RC-SHL02-112013-01 | DEVENS | 11/20/13 13:10 |
| L1323703-04 | RC-SHL02-112013-02 | DEVENS | 11/20/13 13:20 |

Project Name: AC001.005**Lab Number:** L1323703**Project Number:** AC001.005**Report Date:** 11/25/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Metals

L1323703-01 through -04: The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1323703-01 through -04: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 11/25/13

METALS

Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-01

Date Collected: 11/20/13 12:40

Client ID: RC-SHL01-112013-01

Date Received: 11/21/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 35.4 | Q | mg/kg | 0.036 | 0.004 | 2 | 11/22/13 19:20 | 11/25/13 10:29 | EPA 3050B | 1,6020A | PD |



Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-02

Date Collected: 11/20/13 13:00

Client ID: RC-SHL01-112013-02

Date Received: 11/21/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 81%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 22.1 | Q | mg/kg | 0.032 | 0.004 | 2 | 11/22/13 19:20 | 11/25/13 10:35 | EPA 3050B | 1,6020A | PD |



Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-03

Date Collected: 11/20/13 13:10

Client ID: RC-SHL02-112013-01

Date Received: 11/21/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 96%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 11.7 | Q | mg/kg | 0.032 | 0.004 | 2 | 11/22/13 19:20 | 11/25/13 10:35 | EPA 3050B | 1,6020A | PD |



Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-04

Date Collected: 11/20/13 13:20

Client ID: RC-SHL02-112013-02

Date Received: 11/21/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 95%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 21.0 | Q | mg/kg | 0.032 | 0.004 | 2 | 11/22/13 19:20 | 11/25/13 10:36 | EPA 3050B | 1,6020A | PD |



Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG653977-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/kg | 0.050 | 0.006 | 2 | 11/22/13 19:20 | 11/25/13 10:27 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG653977-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 105 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG653977-4 WG653977-5 QC Sample: L1323703-01 Client ID: RC-SHL01-112013-01 | | | | | | | | | | | | |
| Arsenic, Total | 35.4 | 71.9 | 111 | 105 | | 118 | 116 | | 80-120 | 6 | | 20 |

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323703

Report Date: 11/25/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG653977-3 QC Sample: L1323703-01 Client ID: RC-SHL01-112013-01 | | | | | | |
| Arsenic, Total | 35.4 | 38.8 | mg/kg | 9 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-01
 Client ID: RC-SHL01-112013-01
 Sample Location: DEVENS
 Matrix: Sediment

Date Collected: 11/20/13 12:40
 Date Received: 11/21/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 89.1 | | % | 0.100 | 0.100 | 1 | - | 11/22/13 11:50 | 30,2540G | EA |



Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323703

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-02
Client ID: RC-SHL01-112013-02
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/20/13 13:00
Date Received: 11/21/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 81.4 | | % | 0.100 | 0.100 | 1 | - | 11/22/13 11:50 | 30,2540G | EA |



Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-03
 Client ID: RC-SHL02-112013-01
 Sample Location: DEVENS
 Matrix: Sediment

Date Collected: 11/20/13 13:10
 Date Received: 11/21/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 95.8 | | % | 0.100 | 0.100 | 1 | - | 11/22/13 11:50 | 30,2540G | EA |



Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-04

Date Collected: 11/20/13 13:20

Client ID: RC-SHL02-112013-02

Date Received: 11/21/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 94.5 | | % | 0.100 | 0.100 | 1 | - | 11/22/13 11:50 | 30,2540G | EA |



Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323703

Report Date: 11/25/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG653856-1 QC Sample: L1323703-01 Client ID: RC-SHL01-112013-01 | | | | | | |
| Solids, Total | 89.1 | 86.6 | % | 3 | | 10 |

Project Name: AC001.005

Lab Number: L1323703

Project Number: AC001.005

Report Date: 11/25/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1323703-01A | Amber 250ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1323703-02A | Amber 250ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1323703-03A | Amber 250ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1323703-04A | Amber 250ml unpreserved | A | N/A | 4.2 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

Container Comments

L1323703-01A

L1323703-02A

L1323703-03A

L1323703-04A

*Values in parentheses indicate holding time in days



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with 'J' Qualifiers



Project Name: AC001.005**Lab Number:** L1323703**Project Number:** AC001.005**Report Date:** 11/25/13**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: AC001.005**Lab Number:** L1323703**Project Number:** AC001.005**Report Date:** 11/25/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (*Inorganic Parameters*: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (*Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)*

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisison on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1324166 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | AC001.005 |
| Project Number: | AC001.005 |
| Report Date: | 12/02/13 |

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|--------------------|----------------------------|---------------------------------|
| L1324166-01 | RC-SHL01-112513-01 | DEVENS | 11/25/13 12:30 |
| L1324166-02 | RC-SHL01-112513-02 | DEVENS | 11/25/13 12:40 |
| L1324166-03 | RC-SHL01-112513-03 | DEVENS | 11/25/13 12:50 |

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

L1324166-01, -02 and -03: The concentration of the ICSC was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1324166-01, -02 and -03: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

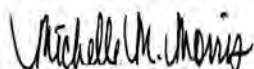
The WG655018-3 Laboratory Duplicate RPD, performed on L1324166-01, is outside the acceptance criteria

Project Name: AC001.005**Lab Number:** L1324166**Project Number:** AC001.005**Report Date:** 12/02/13**Case Narrative (continued)**

for arsenic (26%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the Laboratory Duplicate. The parent sample (L1324166-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 12/02/13

METALS

Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-01

Date Collected: 11/25/13 12:30

Client ID: RC-SHL01-112513-01

Date Received: 11/26/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 93%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 23.6 | Q | mg/kg | 0.033 | 0.004 | 2 | 11/27/13 14:40 | 11/30/13 14:39 | EPA 3050B | 1,6020A | PD |



Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-02

Date Collected: 11/25/13 12:40

Client ID: RC-SHL01-112513-02

Date Received: 11/26/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 19.5 | Q | mg/kg | 0.033 | 0.004 | 2 | 11/27/13 14:40 | 11/30/13 14:45 | EPA 3050B | 1,6020A | PD |



Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-03

Date Collected: 11/25/13 12:50

Client ID: RC-SHL01-112513-03

Date Received: 11/26/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 26.3 | Q | mg/kg | 0.031 | 0.004 | 2 | 11/27/13 14:40 | 11/30/13 14:46 | EPA 3050B | 1,6020A | PD |



Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG655018-1 | | | | | | | | | | |
| Arsenic, Total | 0.016 | J | mg/kg | 0.050 | 0.006 | 2 | 11/27/13 14:40 | 11/30/13 14:38 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1324166

Report Date: 12/02/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG655018-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 108 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis Batch Quality Control

Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG655018-4 WG655018-5 QC Sample: L1324166-01 Client ID: RC-SHL01-112513-01 | | | | | | | | | | | | |
| Arsenic, Total | 23.6 | 66.1 | 93.9 | 106 | | 90.7 | 101 | | 80-120 | 3 | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1324166

Report Date: 12/02/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG655018-3 QC Sample: L1324166-01 Client ID: RC-SHL01-112513-01 | | | | | | |
| Arsenic, Total | 23.6 | 18.1 | mg/kg | 26 | Q | 20 |

INORGANICS & MISCELLANEOUS

Project Name: AC001.005**Project Number:** AC001.005**Lab Number:** L1324166**Report Date:** 12/02/13**SAMPLE RESULTS**

Lab ID: L1324166-01
Client ID: RC-SHL01-112513-01
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/25/13 12:30
Date Received: 11/26/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 92.8 | | % | 0.100 | 0.100 | 1 | - | 11/27/13 13:00 | 30,2540G | EA |



Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-02
 Client ID: RC-SHL01-112513-02
 Sample Location: DEVENS
 Matrix: Sediment

Date Collected: 11/25/13 12:40
 Date Received: 11/26/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 89.8 | | % | 0.100 | 0.100 | 1 | - | 11/27/13 13:00 | 30,2540G | EA |



Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-03

Date Collected: 11/25/13 12:50

Client ID: RC-SHL01-112513-03

Date Received: 11/26/13

Sample Location: DEVENS

Field Prep: Not Specified

Matrix: Sediment

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 92.0 | | % | 0.100 | 0.100 | 1 | - | 11/27/13 13:00 | 30,2540G | EA |



Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1324166

Report Date: 12/02/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG654967-1 QC Sample: L1324166-01 Client ID: RC-SHL01-112513-01 | | | | | | |
| Solids, Total | 92.8 | 92.6 | % | 0 | | 10 |

Project Name: AC001.005

Lab Number: L1324166

Project Number: AC001.005

Report Date: 12/02/13

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1324166-01A | Amber 250ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1324166-02A | Amber 250ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1324166-03A | Amber 250ml unpreserved | A | N/A | 3.6 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with 'J' Qualifiers



Project Name: AC001.005**Lab Number:** L1324166**Project Number:** AC001.005**Report Date:** 12/02/13**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 27 of 30 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.



8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab:

ALPHA Job #: L1324166

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way Ste 307
Holyoke, MA 01040

Phone: 413-540-0650

Email: RLeary@sovercon.com

Additional Project Information:

Project Information

Project Name: AC001.005

Project Location: Devens

Project #: AC001.005

Project Manager: R. Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 hr

Report Information - Data Deliverables

☒ ADEX ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program Criteria

| ANALYSIS | | SAMPLE INFO | |
|---|--|------------------------------------|--|
| VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 | | Filtration | |
| SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH | | <input type="checkbox"/> Field | |
| METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 | | <input type="checkbox"/> Lab to do | |
| METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 | | Preservation | |
| EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | | <input type="checkbox"/> Lab to do | |
| VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only | | | |
| <input type="checkbox"/> PCB <input type="checkbox"/> PEST | | | |
| TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint | | | |
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ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L1324657 |
| Client: | Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019 |
| ATTN: | Denise Rivers |
| Phone: | (518) 877-0390 |
| Project Name: | DEVENS |
| Project Number: | AC001.005 |
| Report Date: | 12/09/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|----------------------------|--------------------|----------------------------|---------------------------------|
| L1324657-01 | RC-SHL01-120413-01 | DEVENS, MA | 12/04/13 13:00 |
| L1324657-02 | RC-SHL02-120413-01 | DEVENS, MA | 12/04/13 13:30 |
| L1324657-03 | RC-SHL02-120413-02 | DEVENS, MA | 12/04/13 13:35 |
| L1324657-04 | RC-SHL02-120413-03 | DEVENS, MA | 12/04/13 13:40 |
| L1324657-05 | RC-SHL02-120413-04 | DEVENS, MA | 12/04/13 15:00 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.


Total Metals

L1324657-01 through -05: The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1324657-01 through -05: The continuing calibration blanks have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 12/09/13

METALS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-01
 Client ID: RC-SHL01-120413-01
 Sample Location: DEVENS, MA
 Matrix: Soil
 Percent Solids: 89%

Date Collected: 12/04/13 13:00
 Date Received: 12/05/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 27.8 | Q | mg/kg | 0.033 | 0.004 | 2 | 12/06/13 11:30 | 12/08/13 10:50 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-02
 Client ID: RC-SHL02-120413-01
 Sample Location: DEVENS, MA
 Matrix: Soil
 Percent Solids: 93%

Date Collected: 12/04/13 13:30
 Date Received: 12/05/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 8.93 | Q | mg/kg | 0.032 | 0.004 | 2 | 12/06/13 11:30 | 12/08/13 10:56 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-03
 Client ID: RC-SHL02-120413-02
 Sample Location: DEVENS, MA
 Matrix: Soil
 Percent Solids: 99%

Date Collected: 12/04/13 13:35
 Date Received: 12/05/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 22.9 | Q | mg/kg | 0.030 | 0.004 | 2 | 12/06/13 11:30 | 12/08/13 10:57 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-04
 Client ID: RC-SHL02-120413-03
 Sample Location: DEVENS, MA
 Matrix: Soil
 Percent Solids: 94%

Date Collected: 12/04/13 13:40
 Date Received: 12/05/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 13.3 | Q | mg/kg | 0.030 | 0.004 | 2 | 12/06/13 11:30 | 12/08/13 10:58 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-05
 Client ID: RC-SHL02-120413-04
 Sample Location: DEVENS, MA
 Matrix: Soil
 Percent Solids: 95%

Date Collected: 12/04/13 15:00
 Date Received: 12/05/13
 Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Arsenic, Total | 12.7 | Q | mg/kg | 0.030 | 0.004 | 2 | 12/06/13 11:30 | 12/08/13 10:59 | EPA 3050B | 1,6020A | PD |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG656789-1 | | | | | | | | | | |
| Arsenic, Total | 0.019 | J | mg/kg | 0.050 | 0.006 | 2 | 12/06/13 11:30 | 12/08/13 10:48 | 1,6020A | PD |

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG656789-2 SRM Lot Number: A2METSPIKE | | | | | | | | |
| Arsenic, Total | 102 | | - | | 80-120 | - | | 20 |

Matrix Spike Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG656789-4 WG656789-5 QC Sample: L1324657-01 Client ID: RC-SHL01-120413-01 | | | | | | | | | | | | |
| Arsenic, Total | 27.8 | 66.6 | 95.2 | 101 | | 99.3 | 107 | | 80-120 | 4 | | 20 |

Project Name: DEVENS
Project Number: AC001.005

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1324657
Report Date: 12/09/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG656789-3 QC Sample: L1324657-01 Client ID: RC-SHL01-120413-01 | | | | | | |
| Arsenic, Total | 27.8 | 29.2 | mg/kg | 5 | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-01
Client ID: RC-SHL01-120413-01
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:00
Date Received: 12/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 88.8 | | % | 0.100 | 0.100 | 1 | - | 12/06/13 13:00 | 30,2540G | EA |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-02
Client ID: RC-SHL02-120413-01
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:30
Date Received: 12/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 93.2 | | % | 0.100 | 0.100 | 1 | - | 12/06/13 13:00 | 30,2540G | EA |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-03
Client ID: RC-SHL02-120413-02
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:35
Date Received: 12/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 98.7 | | % | 0.100 | 0.100 | 1 | - | 12/06/13 13:00 | 30,2540G | EA |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-04
Client ID: RC-SHL02-120413-03
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:40
Date Received: 12/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 94.3 | | % | 0.100 | 0.100 | 1 | - | 12/06/13 13:00 | 30,2540G | EA |



Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-05
Client ID: RC-SHL02-120413-04
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 15:00
Date Received: 12/05/13
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-----------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Mansfield Lab | | | | | | | | | | |
| Solids, Total | 95.1 | | % | 0.100 | 0.100 | 1 | - | 12/06/13 13:00 | 30,2540G | EA |



Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG656827-1 QC Sample: L1324657-01 Client ID: RC-SHL01-120413-01 | | | | | | |
| Solids, Total | 88.8 | 89.2 | % | 0 | | 10 |

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|--------------|-------------------------|--------|-----|---------------|------|--------|-------------------------------|
| L1324657-01A | Amber 120ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1324657-02A | Amber 120ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1324657-03A | Amber 120ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1324657-04A | Amber 120ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |
| L1324657-05A | Amber 120ml unpreserved | A | N/A | 4.1 | Y | Absent | A2-TS(7),A2-DOD-AS-6020T(180) |

*Values in parentheses indicate holding time in days

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

GLOSSARY

Acronyms

| | |
|------|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with 'J' Qualifiers



Project Name: DEVENS
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Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: DEVENS
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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO₃-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH₃-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO₃-F, 353.2 for Nitrate-N, SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH₃-H, 4500NO₃-F, 4500NO₂-B, 4500P-E, 4500-S2-D, 4500SO₃-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, 4500-S D, 4500SO₄-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO₃-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 27 of 34 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

PAGE 1 OF 1

**320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300**

| | |
|----------|--|
| Client: | Sovereign Consulting Inc. |
| Address: | 40 Pen Square Way Ste 307 Holyoke, MA 01040 |
| Phone: | 413-540-0650 |
| Email: | RLeary@sovcon.com |

| | |
|-------------------|------------|
| Project Name: | Devens |
| Project Location: | Devens, MA |
| Project #: | KC001-005 |
| Project Manager: | R. Leary |
| ALPHA Quote #: | |

☐ Standard ☒ RUSH (only confirmed if pre-approved)
Date Due: 24 hr
12/6/13

☒ ADEX ☒ EMAIL

☐ Same as Client Info PO #:

☐ Yes ☒ No MA MCP Analytical Methods
 ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program Criteria

[illegible]

Preservative
 A = None
 B = HCl
 C = HNO₃
 D = H₂SO₄
 E = NaOH
 F = MeOH
 G = NaHSO₄
 H = Na₂S₂O₃
 I = Ascorbic Acid
 J = NH₄Cl
 K = Zn Acetate
 O = Other

Preservative

Date/Time

Winters 12/5/13 11:10
12/5/13 1305
12/5/13 1320
12/5/13 1415

FORM NO: 01-01 (rev. 12-Mar-2012)

APPENDIX H

Bill of Ladings

(See CD Included Separately)

LL21



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-0128

491491NH

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

SUMMARY SHEET

OF

| | | | |
|---|--|---|--|
| I. LOAD INFORMATION: Signature of Transporter Representative: <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> | |
| Load 1: Date of Shipment: <i>13/10</i> Time of Shipment: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): <i>64</i> | Date of Receipt: <i>11/13/13</i> Time of Receipt: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>31.59</i> | | |
| Load 2: Signature of Transporter Representative: <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: | |
| Date of Shipment: <i>18/13</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): <i>64</i> | Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | | |
| Load 3: Signature of Transporter Representative: <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: | |
| Date of Shipment: <i>[Signature]</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): | Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | | |
| Load 4: Signature of Transporter Representative: | | Receiving Facility/Temporary Storage Representative: | |
| Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | | |
| Load 5: Signature of Transporter Representative: | | Receiving Facility/Temporary Storage Representative: | |
| Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | | |
| Load 6: Signature of Transporter Representative: | | Receiving Facility/Temporary Storage Representative: | |
| Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | | |
| J. LOG SHEET VOLUME INFORMATION: | | | |
| | | Total Volume Recorded This Page (cu. yds./tons) | |
| | | Total Carried Forward (cu. yds./tons): | |
| | | Total Carried Forward and This Page (cu. yds./tons): | |



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH 03839
Ph: (800) 963-4776

Original
Ticket# 902407

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:26:42 | scale 1 inbou | phil boisvert | | | 94360 lb |
| Out | 11/13/2013 13:01:28 | scale 2 outbo | eric metzler | | Tare | 36180 lb |
| | | | | | Net | 58180 lb |
| | | | | | Tons | 29.09 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 29.09 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

LL21



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

491491NH

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

SUMMARY SHEET

OF

☐ - ☐

| | | | |
|--|---|--|--|
| I. LOAD INFORMATION: Signature of Transporter Representative: <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> | |
| Load 1: Date of Shipment: 13/13 Time of Shipment: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: 72079 Trailer Registration (if any): 68 | Date of Receipt: 11/13/13 Time of Receipt: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | | |
| Load 2: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: 18/13 Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: 72079 Trailer Registration (if any): 68 | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> Date of Receipt: 11/13/13 Time of Receipt: <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | |
| Load 3: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>[Signature]</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: 72079 Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| Load 4: Signature of Transporter Representative: Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| Load 5: Signature of Transporter Representative: Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| Load 6: Signature of Transporter Representative: Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| J. LOG SHEET VOLUME INFORMATION: | | | |
| | | Total Volume Recorded This Page (cu. yds./tons) | |
| | | Total Carried Forward (cu. yds./tons): | |
| | | Total Carried Forward and This Page (cu. yds./tons): | |



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902317

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 08:21:03 | scale 1 inbou | phil boisvert | | Tare | 96060 lb |
| Out | 11/13/2013 08:47:52 | scale 2 outbo | eric metzler | | Net | 35720 lb |
| | | | | | Tons | 60340 lb |
| | | | | | | 30.17 |

Comments



| Product | LD% | Qty | UDM | Rate | Fees | Amount | Origin |
|--------------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.17 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL22

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902408

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:36:48 | scale 1 inbou | phil boisvert | | Tare | 99800 lb |
| Out | 11/13/2013 13:07:03 | scale 2 outbo | eric metzler | | Net | 34960 lb |
| | | | | | Tons | 64840 lb |
| | | | | | | 32.42 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.42 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL22

Note:
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as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

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Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902301

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/13/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 07:52:57 | scale 1 inbou | phil boisvert | | Tare | 99180 lb |
| Out | 11/13/2013 08:17:31 | scale 2 outbo | eric metzler | | Net | 36200 lb |
| | | | | | Tons | 62980 lb |
| | | | | | | 31.49 |

Comments



| Product | LD% | Qty | Unit | Rate | Amount | Origin |
|----------------------|-----|-------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.49 | Tons | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTG 10

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter [Signature]

Date received 11/13/13

Time received 9:00 AM

Truck/Tractor registration 31,419

Load size (cubic yards/tons) 0

Receiving facility [Signature]

Date of shipment 11/13/13

Time of shipment AM

Trailer registration

Load#: 2

Signature of transporter [Signature]

Date received 11/13/13

Time received 9:00 AM

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Ticket# 902401

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/13/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:08:00 | scale 1 inbou | phil boisvert | | | 93960 lb |
| Out | 11/13/2013 12:37:00 | scale 2 outbo | eric metzler | | Tare | 35880 lb |
| | | | | | Net | 58080 lb |
| | | | | | Tons | 29.04 |

Comments



| Product | LDX | WASTE MANAGEMENT | Amount | Origin |
|--------------------------|-----|------------------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 29.04 Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTCL10

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter [Signature]

Date received 11/13/13

Time received 5:00 PM

Truck/Tractor registration F9TCAT

Load size (cubic yards/tons) 0

Load#: 2

Signature of transporter [Signature]

Date received 11/13/13

Time received 5:00 PM

Truck/Tractor registration 2904

Load size (cubic yards/tons) 0

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility [Signature]

Date of shipment 11/13/13

Time of shipment 4:45

Trailer registration _____

Receiving facility [Signature]

Date of shipment 11/13/13

Time of shipment PM

Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 902312

Customer Name WLFRENCHCAV-491491NH WL Frs Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 08:13:38 | scale 1 inbou | phil boisvert | | | 99400 lb |
| Out | 11/13/2013 08:55:37 | scale 2 outbo | eric metzler | | Tare | 35420 lb |
| | | | | | Net | 63980 lb |
| | | | | | Tons | 31.99 |

Comments

WM
WASTE MANAGEMENT

| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.99 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter [Signature]

Date received 11-13-13

Time received

Truck/Tractor registration 84808

Load size (cubic yards/tons) 31.99

Receiving facility [Signature]

Date of shipment 11/13/13

Time of shipment

Trailer registration 88099

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Time of shipment _____

Trailer registration _____

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Time of shipment _____

Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



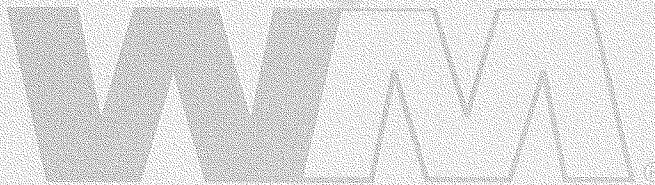
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902409

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/13/2013 12:40:27 | scale 1 | inbou phil boisvert | | Tare | 97980 lb |
| Out | 11/13/2013 13:22:34 | scale 2 | outbo eric metzler | | Net | 35140 lb |
| | | | | | Tons | 62840 lb |
| | | | | | | 31.42 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.42 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter [Signature]

Date received 11-13-13

Truck/Tractor registration 84808

Load size (cubic yards/tons)

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration 88099

Time of shipment

Load#: 2

Signature of transporter [Signature]

Date received 11-13-13

Truck/Tractor registration 84808

Load size (cubic yards/tons)

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration 88099

Time of shipment

Load#: _____

Signature of transporter _____

Date received _____

Truck/Tractor registration _____

Load size (cubic yards/tons)

Receiving facility _____

Date of shipment _____

Trailer registration _____

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902309

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 08:02:38 | scale 1 inbou | phil boisvert | | Tare | 98720 lb |
| Out | 11/13/2013 08:38:15 | scale 2 outbo | eric metzler | | Net | 36480 lb |
| | | | | | Tons | 62240 lb |
| | | | | | | 31.12 |

Comments



| Product | LD% | Qty | UOM | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.12 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

WL 93



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:
Signature of transporter *[Signature]*
Date received 11/13/13 Time received
Truck/Tractor registration 88049
Load size (cubic yards/tons) 31.12

Receiving facility *[Signature]*
Date of shipment 11/13/13 Time of shipment
Trailer registration T55

Load#: 2
Signature of transporter *[Signature]*
Date received 11/13/13 Time received
Truck/Tractor registration 88049
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration T55

Load#:
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page of



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902406

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|---------------|---------------|---------|-------|-----------|
| In 11/13/2013 12:21:40 | scale 1 inbou | phil boisvert | | | 102020 lb |
| Out 11/13/2013 13:21:09 | scale 2 outbo | eric metzler | | Tare | 36240 lb |
| | | | | Net | 65780 lb |
| | | | | Tons | 32.89 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 32.89 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

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Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

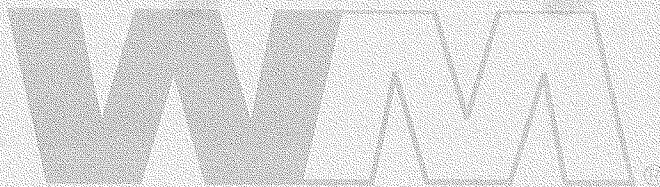


Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902302

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|----------|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 07:54:14 | scale 1 inbou | phil boisvert | | Tare | 98640 lb |
| Out | 11/13/2013 08:23:45 | scale 2 outbo | eric metzler | | Net | 37520 lb |
| | | | | | Tons | 61120 lb |
| Comments | | | | | | 30.56 |



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.56 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

11/12 11/11

WL 95



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



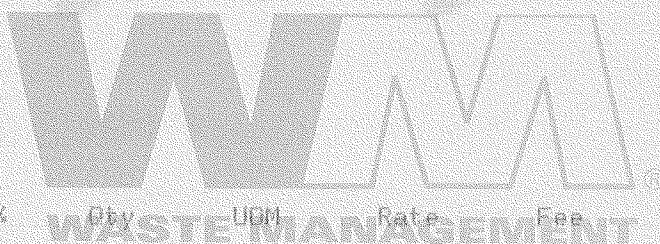
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902400

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/13/2013 12:04:58 | scale 1 | inbou phil boisvert | | Tare | 99380 lb |
| Out | 11/13/2013 13:04:39 | scale 2 | outbo eric metzler | | Net | 37480 lb |
| | | | | | Tons | 61900 lb |
| | | | | | | 30.95 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.95 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

11/12 11/11

Wh 95



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
 Signature of transporter *Phil B*
 Date received 11/13/12 Time received Am
 Truck/Tractor registration 85808
 Load size (cubic yards/tons) 30.95

Receiving facility *Phil B*
 Date of shipment 11/13/13 Time of shipment Am
 Trailer registration T-45

Load#: 2
 Signature of transporter *Phil B*
 Date received 11/13/13 Time received Am
 Truck/Tractor registration 85808
 Load size (cubic yards/tons) 30.95

Receiving facility *Phil B*
 Date of shipment 11/13/13 Time of shipment Am
 Trailer registration T-45

Load#: _____
 Signature of transporter _____
 Date received _____ Time received _____
 Truck/Tractor registration _____
 Load size (cubic yards/tons) _____

Receiving facility _____
 Date of shipment _____ Time of shipment _____
 Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
 Total carried forward (cubic yards/tons) _____
 Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603) 963-4776

Original
Ticket# 902570

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier AXL AXL
Ticket Date 11/14/2013 Vehicle# 17 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 08:54:23 | scale 1 inbou | phil boisvert | | Tare | 92400 lb |
| Out | 11/14/2013 09:34:09 | scale 2 outbo | eric metzler | | Net | 37060 lb |
| | | | | | Tons | 55340 lb |
| | | | | | | 27.67 |

Comments

WASTE MANAGEMENT

| Product | LDX | Qty | UCM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 27.67 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Di405WM-Gonic:Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

AXL 17

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter AXL [Signature]
Date received 11/14/13 Time received 7:00 AM
Truck/Tractor registration AXL 17
Load size (cubic yards/tons) 27.67

Receiving facility Turkey Landfill [Signature]
Date of shipment 11/14/13 Time of shipment 7:00 AM
Trailer registration AXL 17

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



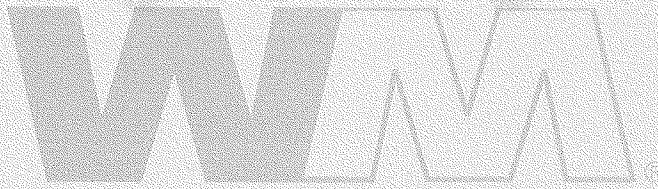
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902670

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier AXL AXL
Ticket Date 11/14/2013 Vehicle# 17 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 13:26:27 | scale 1 inbou | phil boisvert | | Tare | 91880 lb |
| Out | 11/14/2013 14:07:00 | scale 2 outbo | eric metzler | | Net | 36700 lb |
| | | | | | Tons | 55180 lb |
| | | | | | | 27.59 |

Comments



| Product | LD% | Qty | Rate | Amount | Origin |
|--------------------------|-----|-------|------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 27.59 | Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

AXL 17

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter AXL [Signature]
Date received 11/14/13 Time received 7:00 AM
Truck/Tractor registration AXL 17

Receiving facility Turkey Landfill Phil
Date of shipment 11/14/13 Time of shipment 7:00 AM
Trailer registration AXL 17

Load size (cubic yards/tons) 27.99

Load#: 2
Signature of transporter AXL [Signature]
Date received 11/14/13 Time received 11:30 AM
Truck/Tractor registration AXL 17

Receiving facility Turkey Landfill Phil
Date of shipment 11/14/13 Time of shipment 11:30 AM
Trailer registration AXL 17

Load size (cubic yards/tons) 27.99

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902569

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier EMERSON
Ticket Date 11/14/2013 Vehicle# BLACK Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 08:52:24 | scale 1 inbou | phil boisvert | | Tare | 98180 lb |
| Out | 11/14/2013 09:27:19 | scale 2 outbo | eric metzler | | Net | 40660 lb |
| | | | | | Tons | 57520 lb |
| | | | | | | 28.76 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 28.76 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

D:\405WM-Gonic:Signature

[Signature] *ALH*



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Emerson

491491NH

Tracking Number

Note:
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copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter Leung Epkuan AXH
Date received 11/14/13 Time received 6:45 AM
Truck/Tractor registration 7243 AR NH
Load size (cubic yards/tons) 28.76

Receiving facility Turnkey Land Fill Phil
Date of shipment 11/14/13 Time of shipment me
Trailer registration 1781102

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, "NH" 03839
Ph: (800) 963-4776

Original
Ticket# 902668

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier EMERSON
Ticket Date 11/14/2013 Vehicle# BLACK Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 13:25:37 | scale 1 inbou | phil boisvert | | Tare | 92440 lb |
| Out | 11/14/2013 14:03:01 | scale 2 outbo | eric metzler | | Net | 40320 lb |
| | | | | | Tons | 52120 lb |
| | | | | | | 26.06 |

Comments



| Product | LD% | Rate | Amount | Origin |
|--------------------------|-----|------------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 26.06 Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

[Signature] AXH

405WM-Gonic.

Emerson



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
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copies of this page
as necessary.

Load#: 1
Signature of transporter King Emerson AXH
Date received 11/14/13 Time received 6:45 AM
Truck/Tractor registration 2243 AR NH

Receiving facility Turnkey Land fill Philb
Date of shipment 11/14/13 Time of shipment me
Trailer registration 1781102

Load size (cubic yards/tons) 2600

Load#: 2
Signature of transporter King Emerson AXH
Date received 11/14/13 Time received 11:15 AM
Truck/Tractor registration 2243 AR NH
Load size (cubic yards/tons) 2600

Receiving facility Turnkey Land fill Philb
Date of shipment 11/14/13 Time of shipment me
Trailer registration 1781102

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Time of shipment _____

Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03039
Ph: (800) 963-4776

Original
Ticket# 902551

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|---------------|---------------|---------|-------|----------|
| In 11/14/2013 08:04:06 | scale 1 inbou | phil boisvert | | Tare | 93000 lb |
| Out 11/14/2013 08:34:40 | scale 2 outbo | eric metzler | | Net | 36380 lb |
| Comments | | | | Tons | 56620 lb |
| | | | | | 28.31 |



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 28.31 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL 21

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 14/1/13 Time received 7:20
Truck/Tractor registration 79
Load size (cubic yards/tons) 28.31

Receiving facility [Signature]
Date of shipment 1/14/13 Time of shipment 64
Trailer registration 64

Load#: 2
Signature of transporter [Signature]
Date received 14/1/13 Time received 7:20
Truck/Tractor registration 79
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration 64

Load#: _____
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902642

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|----------|----------|
| In | 11/14/2013 12:09:55 | scale 1 inbou | phil boisvert | | 99380 lb | |
| Out | 11/14/2013 12:41:27 | scale 2 outbo | eric metzier | | 36080 lb | |
| | | | | | Net | 63300 lb |
| | | | | | Tons | 31.65 |

Comments

WASTE MANAGEMENT

| Product | LD% | Dty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-----|------------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | | 31.65 Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL 21

J. Load Information

Note:
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as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11/13 Time received 7:20
Truck/Tractor registration 79
Load size (cubic yards/tons)

Receiving facility [Signature]
Date of shipment 11/13 Time of shipment 64
Trailer registration

Load#: 2
Signature of transporter [Signature]
Date received 11/13 Time received 7:20
Truck/Tractor registration 79
Load size (cubic yards/tons) 31.65

Receiving facility [Signature]
Date of shipment 11/13 Time of shipment 64
Trailer registration

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

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TurnKey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902559

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 08:21:05 | scale 1 inbou | phil boisvert | | Tare | 98660 lb |
| Out | 11/14/2013 09:03:47 | scale 2 outbo | eric metzler | | Net | 35260 lb |
| | | | | | Tons | 63400 lb |
| | | | | | | 31.70 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.70 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.

L&L 22



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
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Load#:

Signature of transporter
11/14/13
Date received Time received
67324
Truck/Tractor registration

Load size (cubic yards/tons) 31.70

Receiving facility
11/14/13
Date of shipment Time of shipment
62
Trailer registration

Load#: 2

Signature of transporter
11/14/13
Date received Time received
67324
Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment Time of shipment
62
Trailer registration

Load#:

Signature of transporter

Date received Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page of



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902645

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

Time
In 11/14/2013 12:25:07
Out 11/14/2013 12:51:18
Comments
Scale Operator
scale 1 inbound phil boisvert
scale 2 outbo eric metzler
Inbound Gross 98300 lb
Tare 34940 lb
Net 63360 lb
Tons 31.68



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.68 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.

L&L 22



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH

Tracking Number

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Note:
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J. Load Information

Load#: 1

Signature of transporter

11/14/13

Date received

67324

Time received

Truck/Tractor registration

Load size (cubic yards/tons) 3

Receiving facility

11/14/13

Date of shipment

62

Time of shipment

Trailer registration

Load#: 2

Signature of transporter

11/14/13

Date received

67324

Time received

Truck/Tractor registration

Load size (cubic yards/tons) 31.68

Receiving facility

11/14/13

Date of shipment

62

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902549

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/14/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|-------|----------|
| In | 11/14/2013 08:01:21 | scale 1 inbound | phil boisvert | | | 33000 lb |
| Out | 11/14/2013 08:28:55 | scale 2 outbound | eric metzler | | | 35700 lb |
| | | | | | Net | 58100 lb |
| | | | | | Tons | 29.05 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 29.05 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTK10

J. Load Information

Note:
Make additional
copies of this page
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Load#: 1

Signature of transporter [Signature]

Date received 11/14/13

Time received AM

Receiving facility [Signature]

Date of shipment 11/14/13

Time of shipment AM

Truck/Tractor registration F9TC9T

Trailer registration

Load size (cubic yards/tons) 29.05

Load#: 2

Signature of transporter [Signature]

Date received 11/14/13

Time received F9TC9T

Receiving facility

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Receiving facility

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902641

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/14/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/14/2013 12:06:52 | scale 1 | inbou phil boisvert | | Tare | 98320 lb |
| Out | 11/14/2013 12:39:51 | scale 2 | outbo eric metzler | | Net | 35760 lb |
| | | | | | Tons | 62560 lb |
| | | | | | | 31.28 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.28 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTCL10

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: 2

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



*Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902556

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PQ
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/14/2013 08:16:41 | scale 1 inbou | phil boisvert | | | 100340 lb |
| Out | 11/14/2013 08:53:55 | scale 2 outbo | eric metzler | | | 35400 lb |
| | | | | | Net | 64940 lb |
| | | | | | Tons | 32.47 |

Comments

WM
WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.47 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-14-13 Time received _____
Truck/Tractor registration 84208
Load size (cubic yards/tons) 32.47

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 88099

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902650

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 12:41:27 | scale 1 inbou | phil boisvert | | Tare | 98700 lb |
| Out | 11/14/2013 13:23:53 | scale 2 outbo | eric metzler | | Net | 35120 lb |
| | | | | | Tons | 63580 lb |
| | | | | | | 31.79 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.79 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-14-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 31.79

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 88099

Load#: 2
Signature of transporter [Signature]
Date received 11-14-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 31.79

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 88099

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902557

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/14/2013 08:17:45 | scale 1 inbou | phil boisvert | | Tare | 104480 lb |
| Out | 11/14/2013 08:57:23 | scale 2 outbo | eric metzler | | Net | 36500 lb |
| | | | | | Tons | 67990 lb |
| | | | | | | 33.99 |

Comments



| Product | LD% | Gty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 33.99 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

WLF90

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-14-13 Time received 7-35
Truck/Tractor registration 85529MA
Load size (cubic yards/tons) 33.99

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment
Trailer registration

Load#: 2
Signature of transporter [Signature]
Date received 11-14-13 Time received 7-35
Truck/Tractor registration 85529MA
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

Load#: _____
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

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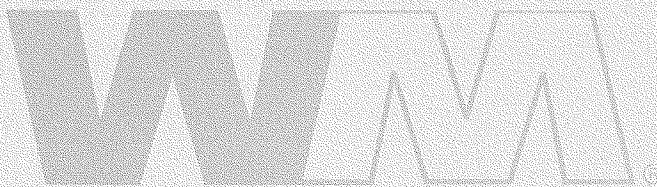
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902651

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/14/2013 12:42:22 | scale 1 inbou | phil boisvert | | Tare | 101140 lb |
| Out | 11/14/2013 13:25:04 | scale 2 outbo | eric metzler | | Net | 36260 lb |
| | | | | | Tons | 64000 lb |
| | | | | | | 32.44 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.44 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

WLF90

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

Date received

85522MA

Truck/Tractor registration

Time received

7-35

Load size (cubic yards/tons)

Receiving facility

11/14/13

Date of shipment

Time of shipment

Trailer registration

Load#: 2

Signature of transporter

Date received

85522MA

Truck/Tractor registration

Time received

7-35

Load size (cubic yards/tons)

Receiving facility

11/14/13

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902558

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|-----------------|---------------|---------|-------|-----------|
| In | 11/14/2013 08:19:46 | scale 1 inbound | phil boisvert | | | 101120 lb |
| Out | 11/14/2013 09:00:39 | scale 2 inbound | eric metzler | | | 36660 lb |
| | | | | | Net | 64460 lb |
| | | | | | Tons | 32.23 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.23 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 11/14/13

Truck/Tractor registration 88098

Load size (cubic yards/tons) 32.83

Receiving facility [Signature]

Date of shipment 11/14/13

Trailer registration 155

Time of shipment

Load#: 2

Signature of transporter [Signature]

Date received 11/14/13

Truck/Tractor registration 88098

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902652

Customer Name WLFRENCHEXDAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|-------|-----------|
| In | 11/14/2013 12:43:29 | scale 1 inbound | phil boisvert | | Tare | 100840 lb |
| Out | 11/14/2013 13:28:31 | scale 2 outbound | eric metzler | | Net | 36560 lb |
| | | | | | Tons | 64280 lb |
| | | | | | | 32.14 |

Comments



| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.14 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

93



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

Note:
Make additional
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as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 11/14/13 Time received _____
Truck/Tractor registration 88098
Load size (cubic yards/tons) 0

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 755

Load#: 2
Signature of transporter [Signature]
Date received 11/14/13 Time received _____
Truck/Tractor registration 88098
Load size (cubic yards/tons) 0 32.14

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 755

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902003

Customer Name WLFRENCHEXDAV-491491NH WL Fre Carrier JR JR CONSTRUCTION
Ticket Date 11/12/2013 Vehicle# 23 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Time
In 11/12/2013 09:08:31 Scale Operator
Out 11/12/2013 09:45:53 scale 1 inbound phil boisvert Inbound Gross 98180 lb
scale 2 outbo eric metzler Tare 38060 lb
Net 60120 lb
Tons 30.06

Comments

WM
WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.06 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief, TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

23

491491NH

Tracking Number

J. Load Information

Note:
Make additional
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Load#: ① *[Signature]*
JR CONST. #23
Signature of transporter
11-12-13
Date received
79511
Truck/Tractor registration
Load size (cubic yards/tons) 0

TURNKEY CF *[Signature]*
Receiving facility
11-12-13
Date of shipment
172003
Trailer registration
Time of shipment

Load#: ② *[Signature]*
J.R. CONST. #23
Signature of transporter
11-12-13
Date received
79511
Truck/Tractor registration
Load size (cubic yards/tons)

TURNKEY CF
Receiving facility
11-12-13
Date of shipment
172003
Trailer registration
Time of shipment

Load#: _____
Signature of transporter
Date received _____ Time received _____
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment _____ Time of shipment _____
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902195

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier JR JR CONSTRUCTION
Ticket Date 11/12/2013 Vehicle# 23 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 13:19:56 | scale 1 inbou | PHIL BOISVERT | | | 99400 lb |
| Out | 11/12/2013 13:55:21 | scale 2 outbo | eric metzler | | Tare | 37840 lb |
| | | | | | Net | 61640 lb |
| | | | | | Tons | 30.82 |

Comments



| Product | LD% | WASTE MANAGEMENT | Rate | Fee | Amount | Origin |
|--------------------------|-----|------------------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.82 Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: ①
JR CONST #23
Signature of transporter
11-12-13
Date received
79511
Truck/Tractor registration
0
Load size (cubic yards/tons)

TURNKEY
Receiving facility
11-12-13
Date of shipment
172003
Trailer registration
CF Phil B
Time of shipment

Load#: ②
J.R. CONST. #23
Signature of transporter
11-12-13
Date received
79511
Truck/Tractor registration
30.87
Load size (cubic yards/tons)

TURNKEY
Receiving facility
11-12-13
Date of shipment
172003
Trailer registration
CF Phil B
Time of shipment

Load#: _____
Signature of transporter
Date received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment
Trailer registration
Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902093

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 09:37:48 | scale 1 inbou | phil boisvert | | Tare | 105260 lb |
| Out | 11/12/2013 10:12:24 | scale 2 outbo | eric metzler | | Net | 36320 lb |
| | | | | | Tons | 68940 lb |
| | | | | | | 34.47 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 34.47 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
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as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 11/13

Time received AM

Truck/Tractor registration 72079

Load size (cubic yards/tons) 34.47

Receiving facility [Signature]

Date of shipment 11/12/13

Time of shipment AM

Trailer registration 64

Load#: 2

Signature of transporter [Signature]

Date received 12/13

Time received AM

Truck/Tractor registration 72079

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment 64

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902222

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-----------|----------|
| In | 11/12/2013 14:02:17 | scale 1 inbou | PHIL BOISVERT | | 100920 lb | |
| Out | 11/12/2013 14:36:57 | scale 2 outbo | eric metzler | | 36000 lb | |
| | | | | | Net | 64920 lb |
| | | | | | Tons | 32.46 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.46 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 12/13

Time received AM

Truck/Tractor registration 72079

Load size (cubic yards/tons) 0

Load#: 2

Signature of transporter [Signature]

Date received 12/13

Time received PM

Truck/Tractor registration 72079

Load size (cubic yards/tons) 32.46

Receiving facility [Signature]

Date of shipment 11/12/13

Time of shipment AM

Trailer registration 64

Receiving facility [Signature]

Date of shipment 11/12/13

Time of shipment PM

Trailer registration 64

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Time of shipment _____

Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902088

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 09:20:49 | scale 1 inbou | phil boisvert | | Tare | 98020 lb |
| Out | 11/12/2013 09:50:10 | scale 2 outbo | eric metzler | | Net | 35200 lb |
| | | | | | Tons | 62820 lb |
| | | | | | | 31.41 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.41 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL22

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter PC

Date received 11/12/13

Truck/Tractor registration 67324

Load size (cubic yards/tons) 31.41

Time received AM

Receiving facility Thurston

Date of shipment 11/12/13

Trailer registration 62

Time of shipment AM

Load#: 2

Signature of transporter PC

Date received 11/12/13

Truck/Tractor registration 67324

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902204

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 13:35:22 | scale 1 inbou | PHIL BOISVERT | | Tare | 100620 lb |
| Out | 11/12/2013 14:13:48 | scale 2 outbo | eric metzler | | Net | 34900 lb |
| | | | | | Tons | 65720 lb |
| | | | | | | 32.86 |

Comments



| Product | LD% | LD% | LD% | LD% | LD% | Amount | Origin |
|----------------------|-----|-------|------|-----|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.86 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL22

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter PC

Date received 11/12/13

Truck/Tractor registration 67324

Time received AM

Receiving facility Thurston

Date of shipment 11/12/13

Trailer registration 62

Time of shipment AM

Load size (cubic yards/tons) 3

Load#: 2

Signature of transporter PC

Date received 11/12/13

Truck/Tractor registration 67324

Time received PM

Receiving facility Thurston

Date of shipment 11/12/13

Trailer registration 62

Time of shipment PM

Load size (cubic yards/tons) 3286

Load#: _____

Signature of transporter _____

Date received _____

Truck/Tractor registration _____

Time received _____

Receiving facility _____

Date of shipment _____

Trailer registration _____

Time of shipment _____

Load size (cubic yards/tons) _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902139

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier SF CHASE SF CHASE
Ticket Date 11/12/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|-----------|----------|
| In | 11/12/2013 11:20:18 | scale 1 inbound | PHIL BOISVERT | | 100540 lb | |
| Out | 11/12/2013 12:10:53 | scale 2 outbound | eric metzler | | 35620 lb | |
| | | | | | Net | 64920 lb |
| | | | | | Tons | 32.46 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.46 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

SF 3

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902140

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier TEMP ANY CARRIER
Ticket Date 11/12/2013 Vehicle# EMMERSON Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------------|---------------|---------|-----------|----------|
| In | 11/12/2013 11:22:37 | scale 1 inbou | PHIL BOISVERT | | 100520 lb | |
| Out | 11/12/2013 12:09:25 | scale 2 outbou | eric metzier | | 40540 lb | |
| | | | | | Net | 59980 lb |
| | | | | | Tons | 29.99 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 29.99 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Emerson

Material Shipping Record & Log

491491NH

Tracking Number

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: _____

Signature of transporter
Emerson

11/12/13

Date received

9:30 AM

Time received

7243 AR NH

Truck/Tractor registration

29.99

Load size (cubic yards/tons)

Turnkey Land Fill

Receiving facility

11/12/13

Date of shipment

AM

Time of shipment

1781102 ME

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902069

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/12/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 08:31:50 | scale 1 inbou | phil boisvert | | | 97320 lb |
| Out | 11/12/2013 08:57:39 | scale 2 outbo | eric metzler | | Tare | 35820 lb |
| | | | | | Net | 61500 lb |
| | | | | | Tons | 30.75 |

Comments



| Product | LD% | Qty | Unit | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.75 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTL 10

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: 2

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603) 963-4776

Original
Ticket# 902163

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/12/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 12:46:04 | scale 1 inbou | PHIL BOISVERT | | | 99660 lb |
| Out | 11/12/2013 13:14:14 | scale 2 outbo | eric metzler | | Tare | 35500 lb |
| | | | | | Net | 64160 lb |
| | | | | | Tons | 32.08 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 32.08 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTL 10

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11/12/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

11/12/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/12/13

Date of shipment

Time of shipment

Trailer registration

Receiving facility

11/12/13

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



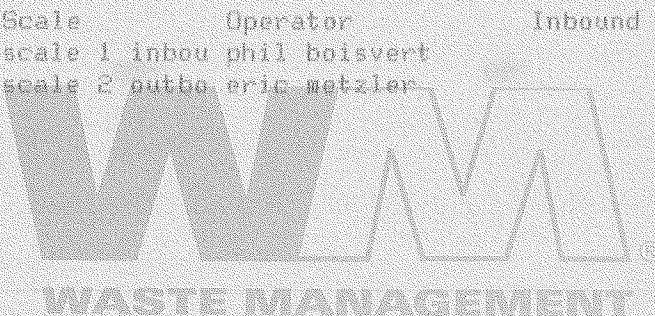
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902071

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/12/2013 08:38:48 | scale 1 | inbou phil boisvert | | Tare | 98920 lb |
| Out | 11/12/2013 09:11:41 | scale 2 | outbo eric metzler | | Net | 35420 lb |
| | | | | | Tons | 63500 lb |
| | | | | | | 31.75 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.75 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

87

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902179

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 13:03:49 | scale 1 inbou | PHIL BOISVERT | | | 98260 lb |
| Out | 11/12/2013 13:38:26 | scale 2 outbo | eric metzler | | Tare | 35240 lb |
| | | | | | Net | 63020 lb |
| | | | | | Tons | 31.51 |

Comments



| Product | LD% | Qty | Unit | Rate | Fees | Amount | Origin |
|--------------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.51 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

87

491491NH

Tracking Number

J. Load Information

Note:
Make additional
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as necessary.

Load#: 2
Signature of transporter [Signature]
Date received 11-12-13 Time received PM
Truck/Tractor registration 81808
Load size (cubic yards/tons) 0

Receiving facility [Signature]
Date of shipment 11/12/13 Time of shipment PM
Trailer registration 88099

Load#: 2
Signature of transporter [Signature]
Date received 11-12-13 Time received PM
Truck/Tractor registration 81808
Load size (cubic yards/tons) 3151

Receiving facility [Signature]
Date of shipment 11/12/13 Time of shipment PM
Trailer registration 88099

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



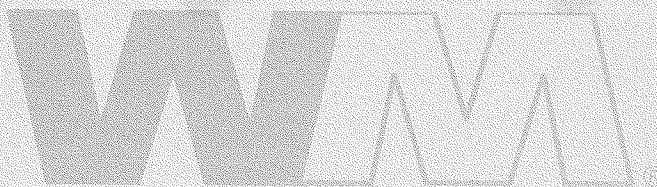
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902076

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 08:51:44 | scale 1 inbou | phil boisvert | | Tare | 101060 lb |
| Out | 11/12/2013 09:22:55 | scale 2 outbo | eric metzler | | Net | 36500 lb |
| | | | | | Tons | 64560 lb |
| | | | | | | 32.28 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.28 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

93

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter
11/12/13

Date received

Truck/Tractor registration
88099

Load size (cubic yards/tons)
32.28

Time received
AM

Receiving facility

Date of shipment
11/12/13

Trailer registration
T55

Time of shipment
AM

Load#:

Signature of transporter
11/14/13

Date received

Truck/Tractor registration
88099

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration
T55

Time of shipment

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902188

Customer Name WLFRENCHXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 13:11:47 | scale 1 inbou | PHIL BOISVERT | | Tare | 100040 lb |
| Out | 11/12/2013 13:42:06 | scale 2 outbo | eric metzler | | Net | 36180 lb |
| | | | | | Tons | 63860 lb |
| | | | | | | 31.93 |

Comments



| Product | LDX | UOM | Rate | Amount | Origin |
|----------------------|-----|-----|------------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | | 31.93 Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

93
491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902080

Customer Name WLFRENCH EXCAV-491491NH WL Frz Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/12/2013 08:58:39 | scale 1 | inbou phil boisvert | | | 99920 lb |
| Out | 11/12/2013 09:24:21 | scale 2 | outbo eric metzler | | | 37400 lb |
| | | | | | Net | 62520 lb |
| | | | | | Tons | 31.26 |

Comments



| Product | LD% | WDM | UOM | Rate | Fees | Amount | Origin |
|----------------------|-----|-----|------------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | | 31.25 Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
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as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11/2/13 Time received AM
Truck/Tractor registration 85808
Load size (cubic yards/tons) 31.26

Receiving facility [Signature]
Date of shipment 11/12/13 Time of shipment AM
Trailer registration T-45

Load#: 2
Signature of transporter [Signature]
Date received 11/12/13 Time received
Truck/Tractor registration 85808
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration T-45

Load#:
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page of



Turnkey Landfill
300 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902177

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|-------|-----------|
| In | 11/12/2013 13:02:30 | scale 1 inbound | PHIL BOISVERT | | | 100000 lb |
| Out | 11/12/2013 13:35:41 | scale 2 outbound | eric metzler | | Tare | 37100 lb |
| | | | | | Net | 63700 lb |
| | | | | | Tons | 31.85 |

Comments



| Product | LD% | Rate | Amount | Origin |
|----------------------|-----|------------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.85 Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
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as necessary.

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902321

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier TEMP ANY CARRIER
Ticket Date 11/13/2013 Vehicle# EMERSON Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/13/2013 08:36:58 | scale 1 inbou | phil boisvert | | Tare | 103000 lb |
| Out | 11/13/2013 09:06:52 | scale 2 outbo | eric metzler | | Net | 40640 lb |
| | | | | | Tons | 62360 lb |
| | | | | | | 31.18 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.18 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Emerson



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
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as necessary.

Load#: 1
Signature of transporter Jonny Emerson AXL
Date received 11 13 13 Time received 6 45 Am
Truck/Tractor registration 7243 AR NH
Load size (cubic yards/tons) 31.18

Receiving facility Turnkey Land fill Phil
Date of shipment 11 13 13 Time of shipment AM
Trailer registration 1781102 me

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

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Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902418

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier TEMP ANY CARRIER
Ticket Date 11/13/2013 Vehicle# EMERSON Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:57:20 | scale 1 inbou | phil boisvert | | Tare | 97100 lb |
| Out | 11/13/2013 13:28:35 | scale 2 outbo | eric metzler | | Net | 40340 lb |
| | | | | | Tons | 56760 lb |
| | | | | | | 28.38 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 28.38 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter Jerry Emerson AXL
Date received 11 13 13 Time received 6:45 AM
Truck/Tractor registration 2243 AR NH

Receiving facility Turnkey Land fill Phil
Date of shipment 11 13 13 Time of shipment AM
Trailer registration 1781102 MC

Load size (cubic yards/tons) 26.38

Load#: 2
Signature of transporter Jerry Emerson AXL
Date received 11 13 13 Time received 11:10 AM
Truck/Tractor registration 2243 AR NH
Load size (cubic yards/tons) 26.38

Receiving facility Turnkey Land fill Phil
Date of shipment 11 13 13 Time of shipment PM
Trailer registration 1781102 MC

Load#: _____

Signature of transporter _____

Receiving facility _____

Date received _____

Time received _____

Date of shipment _____

Time of shipment _____

Truck/Tractor registration _____

Trailer registration _____

Load size (cubic yards/tons) _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

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Total carried forward and this page (cubic yards/tons) _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603) 963-4776

Original
Ticket# 902311

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

Time
In 11/13/2013 08:07:09
Out 11/13/2013 08:39:27

Scale
scale 1 inbound phil boisvert
scale 2 outbound eric metzler

Operator

Inbound

Gross
Tare
Net
Tons

99660 lb
36480 lb
63180 lb
31.59

Comments



Product

LD%

WASTE MANAGEMENT

Amount

Origin

1 Cont Soil Met-Tons 100

31.59 Tons

MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 903270

Customer Name WLFRENCH EXCAV-491491NH WL Frc Carrier
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator

Vehicle# 67
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile

NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED
491491NH (CONTAMINATED SOIL (DISPO
Scale
scale 1 inbound eric metzler
scale 2 outbound phil boisvert

Time
In 11/19/2013 08:40:13
Out 11/19/2013 09:16:10
Comments

Inbound Gross
Tare
Net
Tons
98980 lb
35680 lb
63300 lb
31.65



| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.65 | Tons | | | | MA |

WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that
information provided is true and correct to the best of my knowledge and belief.
THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Signature

Total Fees
Total Ticket



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903359

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/19/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|---------------|---------------|---------|-------|----------|
| In 11/19/2013 12:44:02 | scale 1 inbou | eric metzler | | Tare | 97960 lb |
| Out 11/19/2013 13:17:23 | scale 2 outbo | phil boisvert | | Net | 35400 lb |
| | | | | Tons | 62560 lb |
| | | | | | 31.28 |

Comments



| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.28 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
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as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03039
PH: (800) 963-4776

Original
Ticket# 903253

Customer Name MLERENCHEXCAV-491491NH ML Frs Carrier IMTS JMTS
Ticket Date 11/19/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|--------------|---------|-------|-----------|
| In | 11/19/2013 07:57:34 | scale 1 inbou | eric metzler | | Tare | 103920 lb |
| Out | 11/19/2013 08:29:36 | scale 2 outbo | eric metzler | | Net | 35120 lb |
| | | | | | Tons | 60000 lb |
| | | | | | | 34.40 |

Comments:



| Product | LD% | WASTE MANAGEMENT | Amount | Origin |
|--------------------------|-----|------------------|--------|--------|
| 1 Cont Soil Met Tons 100 | | 34.40 Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
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as necessary.

Load#: 1
Signature of transporter JMTS INC
Date received 11/19/13 Time received _____
Truck/Tractor registration 6273AP
Load size (cubic yards/tons) 3440

Receiving facility GME
Date of shipment 11/19/13 Time of shipment _____
Trailer registration 23-46475

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

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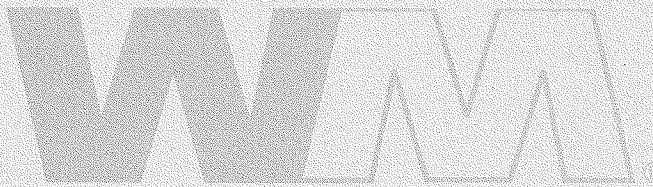
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903344

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier JMTS JMTS
Ticket Date 11/19/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/19/2013 12:15:27 | scale 1 inbou | eric metzler | | Tare | 100320 lb |
| Out | 11/19/2013 12:47:10 | scale 2 outbo | phil boisvert | | Net | 34940 lb |
| | | | | | Tons | 65380 lb |
| | | | | | | 32.69 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.69 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
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Load#:

1

Signature of transporter

11/19/13

Date received

Time received

6273 AP

Truck/Tractor registration

34.40

Load size (cubic yards/tons)

Receiving facility

11/19/13

Date of shipment

Time of shipment

23-46475

Trailer registration

Load#:

2

Signature of transporter

11/19/13

Date received

Time received

6273 AP

Truck/Tractor registration

32.69

Load size (cubic yards/tons)

Receiving facility

11/19/13

Date of shipment

Time of shipment

23-46475

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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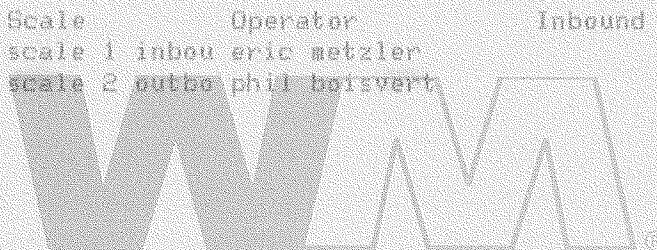
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03039
Ph: (800) 963-4776

Original
Ticket# 903280

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/19/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|------------------|---------------|---------|----------|----------|
| In 11/19/2013 09:11:10 | scale 1 inbound | eric metzler | | 89340 lb | |
| Out 11/19/2013 09:39:08 | scale 2 outbound | phil holzvert | | 36300 lb | |
| | | | | Net | 53040 lb |
| | | | | Tons | 26.52 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 26.52 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 198
Signature of transporter: [Signature]
Date received: 7/20/79 Time received: _____
Truck/Tractor registration: 26-52
Load size (cubic yards/tons): 2

Receiving facility: [Signature]
Date of shipment: 7/19/83 Time of shipment: 64
Trailer registration: 64

Load#: 2
Signature of transporter: [Signature]
Date received: 7/20/77 Time received: _____
Truck/Tractor registration: _____
Load size (cubic yards/tons): _____

Receiving facility: _____
Date of shipment: 64 Time of shipment: _____
Trailer registration: _____

Load#: _____
Signature of transporter: _____
Date received: _____ Time received: _____
Truck/Tractor registration: _____
Load size (cubic yards/tons): _____

Receiving facility: _____
Date of shipment: _____ Time of shipment: _____
Trailer registration: _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903386

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/19/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113291
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/19/2013 13:27:17 | scale 1 inbou | eric metzler | | Tare | 105680 lb |
| Out | 11/19/2013 14:34:22 | scale 2 outbo | phil boisvert | | Net | 35060 lb |
| | | | | | Tons | 70620 lb |
| | | | | | | 35.31 |

Comments



| Product | LD% | Qty | Unit | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 35.31 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 198
Signature of transporter [Signature]
Date received 7/20/79 Time received _____
Truck/Tractor registration _____

Receiving facility [Signature]
Date of shipment 7/19/83 Time of shipment 6:41
Trailer registration _____

Load size (cubic yards/tons) _____
Load#: 2
Signature of transporter [Signature]
Date received 7/20/79 Time received _____
Truck/Tractor registration 35.31
Load size (cubic yards/tons) 35.31

Receiving facility [Signature]
Date of shipment 7/19/83 Time of shipment 6:41
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

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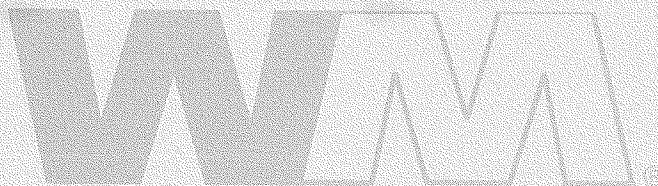
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903254

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier ROGERS ROGERS
Ticket Date 11/19/2013 Vehicle# 7 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO 093105562
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/19/2013 07:58:30 | scale 1 inbou | eric metzler | | Tare | 91360 lb |
| Out | 11/19/2013 08:36:01 | scale 2 outbo | phil boisvert | | Net | 36520 lb |
| | | | | | Tons | 54840 lb |
| | | | | | | 27.42 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 27.42 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Bryan Douglas

Signature of transporter

11/19/13

Date received

6:2019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Bryan Douglas

Signature of transporter

11/19/13

Date received

6:2019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Bryan Douglas

Signature of transporter

11/19/13

Date received

6:2019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903345

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier ROGERS ROGERS
Ticket Date 11/19/2013 Vehicle# 7 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO 093105562
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/19/2013 12:16:12 | scale 1 inbou | eric metzler | | Tare | 99300 lb |
| Out | 11/19/2013 12:56:37 | scale 2 outbo | phil boisvert | | Net | 36100 lb |
| | | | | | Tons | 63200 lb |
| | | | | | | 31.60 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.60 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Bryan I. Douglas

Signature of transporter

11/19/13

Date received

62019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

2742

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

Load#:

Bryan Douglas

Signature of transporter

11/19/13

Date received

62019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

31.60

Load#:

Bryan Douglas

Signature of transporter

11/19/13

Date received

62019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
300 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903252

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier THOMPSON THOMPSON TRUCKING
Ticket Date 11/19/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest * PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/19/2013 07:55:03 | scale 1 inbou | eric metzler | | Tare | 97140 lb |
| Out | 11/19/2013 08:22:35 | scale 2 outbo | phil boisvert | | Net | 35000 lb |
| | | | | | Tons | 62140 lb |
| | | | | | | 31.07 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.07 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Thompson 3

491491NH

Tracking Number

DSP

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: _____

Signature of transporter

11-19-13

Date received

Time received

WJT-3

Truck/Tractor registration

Load size (cubic yards/tons)

31.07

Receiving facility

11-19-13

Date of shipment

Time of shipment

T310131

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



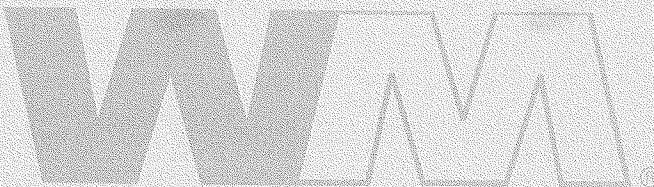
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03835
Ph: (800) 963-4776

Original
Ticket# 903343

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier THOMPSON THOMPSON TRUCKING
Ticket Date 11/19/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/19/2013 12:14:26 | scale 1 inbou | eric metzler | | | 98100 lb |
| Out | 11/19/2013 12:45:35 | scale 2 outbo | phil boisvert | | Tare | 34760 lb |
| | | | | | Net | 63340 lb |
| | | | | | Tons | 31.67 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.67 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Thompson 3

491491NH

Tracking Number

DISP

Note:
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as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 11-19-13 Time received _____
Truck/Tractor registration WJT-2
Load size (cubic yards/tons) _____

Receiving facility [Signature]
Date of shipment 11-19-13 Time of shipment _____
Trailer registration T310131

Load#: 2
Signature of transporter [Signature]
Date received 11-19-13 Time received _____
Truck/Tractor registration WJT-2
Load size (cubic yards/tons) 31.67

Receiving facility [Signature]
Date of shipment 11-19-13 Time of shipment _____
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903273

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/19/2013 Vehicle# 82 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|---------------|---------------|---------|-------|----------|
| In 11/19/2013 08:49:41 | scale 1 inbou | eric metzler | | Tare | 98600 lb |
| Out 11/19/2013 09:27:56 | scale 2 outbo | phil boisvert | | Net | 37560 lb |
| | | | | Tons | 61040 lb |
| | | | | | 30.52 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.52 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
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Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Ticket# 903366

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/19/2013 Vehicle# 02 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCDRPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/19/2013 13:00:30 | scale 1 inbou | eric metzler | | | 101660 lb |
| Out | 11/19/2013 13:44:02 | scale 2 outbo | phil boisvert | | | 37240 lb |
| | | | | | Net | 64420 lb |
| | | | | | Tons | 32.21 |

Comments


WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.21 | Tons | | | | MA |


Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Dr 405WM-Gonic Signature _____



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
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as necessary.

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 903269

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/19/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/19/2013 08:39:15 | scale 1 inbou | eric metzler | | Tare | 101360 lb |
| Out | 11/19/2013 09:13:21 | scale 2 outbo | phil boisvert | | Net | 36560 lb |
| | | | | | Tons | 64800 lb |
| | | | | | | 32.40 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.40 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

FRENCH 90

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter *[Signature]*

Date received 11-19-13

Time received

Truck/Tractor registration 85520MA

7-35

Trailer registration

Load size (cubic yards/tons) 32.40

Receiving facility *[Signature]*

Date of shipment 11-19-13

Time of shipment

Trailer registration

Load#: 2

Signature of transporter *[Signature]*

Date received 11-19-13

Time received

Truck/Tractor registration 85520MA

7-35

Trailer registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903356

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/19/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest * PU
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|-----------------|---------------|---------|-------|----------|
| In 11/19/2013 12:39:54 | scale 1 inbound | eric metzler | | | 97180 lb |
| Out 11/19/2013 13:11:19 | scale 2 outbo | phil boisvert | | Tare | 36220 lb |
| | | | | Net | 60960 lb |
| | | | | Tons | 30.48 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.48 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

405WM-Gonic
Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

FRENCH 90

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11-19-13

Date received

85520mm

Truck/Tractor registration

Time received

T-35

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

11-19-13

Date received

85520mm

Truck/Tractor registration

Time received

T-35

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903519

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/20/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/20/2013 09:03:29 | scale 1 | inbou eric metzler | | | 97940 lb |
| Out | 11/20/2013 09:35:15 | scale 2 | outbo phil boisvert | | | 35700 lb |
| | | | | | Net | 62240 lb |
| | | | | | Tons | 31.12 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.12 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 11/20/13
Signature of transporter: [Signature]
Date received: 11/20/13 Time received: 03/15
Truck/Tractor registration: 32831
Load size (cubic yards/tons): 3612

Receiving facility: [Signature]
Date of shipment: 11/20/13 Time of shipment:
Trailer registration:

Load#: 11/20/13
Signature of transporter: [Signature]
Date received: 11/20/13 Time received: 03/15
Truck/Tractor registration: 32831
Load size (cubic yards/tons): 3612

Receiving facility:
Date of shipment: Time of shipment:
Trailer registration:

Load#:

Signature of transporter:
Date received: Time received:
Truck/Tractor registration:
Load size (cubic yards/tons):

Receiving facility:
Date of shipment: Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page of



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903603

Customer Name WLFRENCH EXCAV-491491NH WL Fren Carrier WL FRENCH WL FRENCH
Ticket Date 11/20/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/20/2013 12:58:31 | scale 1 inbou | eric metzler | | Tare | 35440 lb |
| Out | 11/20/2013 13:29:42 | scale 2/outbo | phil boisvert | | Net | 64240 lb |
| | | | | | Tons | 32.12 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.12 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Dr405WM-Gonic:Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903504

Customer Name WLFRENCHCAV-491491NH WL Frs Carrier JMTS JMTS
Ticket Date 11/20/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/20/2013 08:41:16 | scale 1 inbou | eric metzler | | Tare | 103800 lb |
| Out | 11/20/2013 09:11:31 | scale 2 outbo | phil boisvert | | Net | 35020 lb |
| | | | | | Tons | 60780 lb |
| | | | | | | 34.39 |

Comments



| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 34.39 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
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as necessary.

Load#: 1

Signature of transporter

11/20/12

Date received

Time received

6223 AP

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/20/13

Date of shipment

Time of shipment

23-46475

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



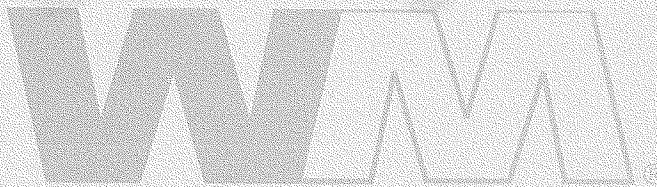
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903592

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier JMTS JMTS
Ticket Date 11/20/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/20/2013 12:36:16 | scale 1 inbou | eric metzler | | | 95100 lb |
| Out | 11/20/2013 13:05:28 | scale 2 outbo | phil boisvert | | Tare | 34800 lb |
| | | | | | Net | 60300 lb |
| | | | | | Tons | 30.15 |

Comments



| Product | LD% | Qty | Unit | Rate | Fees | Amount | Origin |
|--------------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.15 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
SMTS INC
Signature of transporter
11/20/13
Date received
6273 AP
Truck/Tractor registration
24.39
Load size (cubic yards/tons)

[Signature]
Receiving facility
11/20/13
Date of shipment
23-46475
Trailer registration

Load#: 2
SMTS INC
Signature of transporter
11/20/13
Date received
6273 AP
Truck/Tractor registration
30.15
Load size (cubic yards/tons)

[Signature]
Receiving facility
11/20/13
Date of shipment
23-46475
Trailer registration

Load#: _____
Signature of transporter
Date received _____ Time received _____
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment _____ Time of shipment _____
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903512

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/20/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/20/2013 08:52:53 | scale 1 inbou | eric metzler | | Tare | 38200 lb |
| Out | 11/20/2013 09:18:29 | scale 2 outbo | phil boisvert | | Net | 36340 lb |
| | | | | | Tons | 61860 lb |
| | | | | | | 30.93 |

Comments



| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Mat-Tons | 100 | 30.93 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

40



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 12/19/13 Time received 2:27 PM
Truck/Tractor registration 3.93
Load size (cubic yards/tons) 3.93

Receiving facility [Signature]
Date of shipment 12/20/13 Time of shipment 64
Trailer registration 64

Load#: 2
Signature of transporter [Signature]
Date received 12/19/13 Time received 4:27 PM
Truck/Tractor registration 64
Load size (cubic yards/tons) 64

Receiving facility [Signature]
Date of shipment 12/20/13 Time of shipment 64
Trailer registration 64

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903601

Customer Name WLFRENCHCAV-491491NH WL Frc Carrier LL DT
Ticket Date 11/20/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest +6 PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/20/2013 12:55:39 | scale 1 inbou | eric metzler | | | 101000 lb |
| Out | 11/20/2013 13:31:04 | scale 2 outbo | phil boisvert | | | 36100 lb |
| | | | | | Net | 64900 lb |
| | | | | | Tons | 32.49 |

Comments *



WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.49 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

D-405WM-Gonic Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 12/13 Time received 7:27
Truck/Tractor registration 64
Load size (cubic yards/tons)

Receiving facility [Signature]
Date of shipment 12/13 Time of shipment 64
Trailer registration 2

Load#: 2
Signature of transporter [Signature]
Date received 12/13 Time received 7:27
Truck/Tractor registration 64
Load size (cubic yards/tons)

Receiving facility [Signature]
Date of shipment 12/13 Time of shipment 64
Trailer registration 2

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons)

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903494

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/20/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/20/2013 08:24:11 | scale 1 inbou | eric metzler | | Tare | 100680 lb |
| Out | 11/20/2013 08:51:12 | scale 2 outbo | phil boisvert | | Net | 38800 lb |
| | | | | | Tons | 61880 lb |
| | | | | | | 30.94 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.94 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000



491491NH

Tracking Number

DISP

Note:
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copies of this page
as necessary.

J. Load Information

Load#: 1 *Robc*
Signature of transporter
Date received 2/20/13 Time received 74-MA
Truck/Tractor registration 30.94
Load size (cubic yards/tons) 30.94

Receiving facility 11/20/13
Date of shipment 74-MA Time of shipment
Trailer registration

Load#: 2 *Robc*
Signature of transporter
Date received 2/20/13 Time received 74-MA
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility 11/20/13
Date of shipment 74-MA Time of shipment
Trailer registration

Load#: _____
Signature of transporter
Date received _____ Time received _____
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment _____ Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903583

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/20/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/20/2013 12:09:37 | scale 1 inbou | eric metzler | | | 97800 lb |
| Out | 11/20/2013 12:40:42 | scale 2 outbo | phil boisvert | | Tare | 38660 lb |
| | | | | | Net | 59140 lb |
| | | | | | Tons | 29.57 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 29.57 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000



491491NH

Tracking Number

DISP

Note:
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J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 25000 Time received MA
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility [Signature]
Date of shipment 11/20/13 Time of shipment
Trailer registration 74-MA

Load#: 2
Signature of transporter [Signature]
Date received 25000 Time received MA
Truck/Tractor registration 29.5
Load size (cubic yards/tons)

Receiving facility [Signature]
Date of shipment 11/20/13 Time of shipment
Trailer registration 74-MA

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey-Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903496

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/20/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/20/2013 08:27:07 | scale 1 inbou | eric metzler | | | 101340 lb |
| Out | 11/20/2013 09:00:08 | scale 2 outbo | phil boisvert | | Tare | 35820 lb |
| | | | | | Net | 65520 lb |
| | | | | | Tons | 32.76 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.76 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTK10

J. Load Information

Note:
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as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11/20/13 Time received [Signature]
Truck/Tractor registration F9TCAT
Load size (cubic yards/tons) 3276

Receiving facility [Signature]
Date of shipment 11/20/13 Time of shipment [Signature]
Trailer registration

Load#: 2
Signature of transporter [Signature]
Date received 11/20/13 Time received [Signature]
Truck/Tractor registration F9TCAT
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

Load#: _____
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903593

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/20/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|-------|----------|
| In | 11/20/2013 12:37:31 | scale 1 inbound | eric metzler | | | 98000 lb |
| Out | 11/20/2013 13:18:07 | scale 2 outbound | phil boisvert | | | 35620 lb |
| | | | | | Net | 62380 lb |
| | | | | | Tons | 31.19 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.19 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTK10

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter

11/20/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

11/20/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903509

Customer Name WLFRENCHXCAV-491491NH WL Fre Carrier ROGERS ROGERS
Ticket Date 11/20/2013 Vehicle# 7
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO 093105562
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Time
In 11/20/2013 08:47:10
Out 11/20/2013 09:15:40

Scale Operator
scale 1 inbou eric metzler
scale 2 outbo phil boisvert

Inbound Gross 95120 lb
Tare 36740 lb
Net 58380 lb
Tons 29.19

Comments



| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 29.19 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Bryan Douglas

Signature of transporter

11/20/13

Date received

Time received

62019

Truck/Tractor registration

Load size (cubic yards/tons)

29.19

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Bryan Douglas

Signature of transporter

11/20/13

Date received

Time received

62019

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill™
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903596

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier ROGERS ROGERS
Ticket Date 11/20/2013 Vehicle# 7 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO 093105562
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|-----------|
| In | 11/20/2013 12:43:56 | scale 1 | inbou eric metzler | | | 104880 lb |
| Out | 11/20/2013 13:20:32 | scale 2 | outbo phil boisvert | | Tare | 36540 lb |
| | | | | | Net | 68340 lb |
| | | | | | Tons | 34.17 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|------------|-----|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 34.17 Tons | | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Bryan Douglas

Signature of transporter

11/20/13

Date received

Time received

62019

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/20/13

Date of shipment

Time of shipment

Trailer registration

Load#:

Bryan Douglas

Signature of transporter

11/20/13

Date received

Time received

62019

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/20/13

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

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Total carried forward and this page (cubic yards/tons)

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Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903502

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier THOMPSON THOMPSON TRUCKING
Ticket Date 11/20/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/20/2013 08:39:13 | scale 1 inbou | eric metzler | | Tare | 98220 lb |
| Out | 11/20/2013 09:05:45 | scale 2 outbo | phil boisvert | | Net | 34500 lb |
| | | | | | Tons | 63720 lb |
| | | | | | | 31.86 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.86 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Thompson 3

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-20-13 Time received W.T.D
Truck/Tractor registration 3186
Load size (cubic yards/tons) 3186

Receiving facility [Signature]
Date of shipment 11-20-13 Time of shipment T 310135
Trailer registration

Load#: 2
Signature of transporter [Signature]
Date received 11-20-13 Time received W.T.D
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility Tree
Date of shipment 11-20-13 Time of shipment T 310135
Trailer registration

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

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Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903591

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier THOMPSON THOMPSON TRUCKING
Ticket Date 11/20/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/20/2013 12:35:04 | scale 1 inbou | eric metzler | | | 95200 lb |
| Out | 11/20/2013 13:04:10 | scale 2 outbo | phil boisvert | | Tare | 34320 lb |
| | | | | | Net | 60960 lb |
| | | | | | Tons | 30.48 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.48 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Thompson 3

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-20-13 Time received 6:57:2
Truck/Tractor registration [Signature]
Load size (cubic yards/tons) _____

Receiving facility [Signature]
Date of shipment 11-20-13 Time of shipment T 310138
Trailer registration _____

Load#: 2
Signature of transporter [Signature]
Date received 11-20-13 Time received 3048
Truck/Tractor registration [Signature]
Load size (cubic yards/tons) _____

Receiving facility [Signature]
Date of shipment 11-20-13 Time of shipment T 310138
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903626

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/20/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/20/2013 13:45:02 | scale 1 inbou | eric metzler | | | 99420 lb |
| Out | 11/20/2013 14:23:25 | scale 2 outbo | phil boisvert | | Tare | 35000 lb |
| | | | | | Net | 64420 lb |
| | | | | | Tons | 32.21 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|------------|-----|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 32.21 Tons | | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 11-20-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 32.21

Receiving facility [Signature]
Date of shipment 11-20-13 Time of shipment _____
Trailer registration 88099

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903518

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/20/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/20/2013 09:02:05 | scale 1 | inbou eric metzler | | Tare | 98640 lb |
| Out | 11/20/2013 09:39:12 | scale 2 | outbo phil boisvert | | Net | 36640 lb |
| | | | | | Tons | 62000 lb |
| | | | | | | 31.00 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.00 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

FRENCH

90



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH

Tracking Number

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

WLF 90 ASD

J. Load Information

Note:
Make additional
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as necessary.

Load#: 1

Signature of transporter

11-20-13

Date received

Time received

85533MA

T-35

Truck/Tractor registration

Load size (cubic yards/tons)

3.00

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: 2

Signature of transporter

11-20-13

Date received

Time received

85533MA

T-35

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800)-963-4776

Original
Ticket# 903611

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/20/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/20/2013 13:11:36 | scale 1 inbou | eric metzler | | | 101640 lb |
| Out | 11/20/2013 13:41:29 | scale 2 outbo | phil boisvert | | Tare | 36300 lb |
| | | | | | Net | 65340 lb |
| | | | | | Tons | 32.67 |

Comments



| Product | LD% | City | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|------|-----|------------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | | | 32.67 Tons | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

FRENCH

90



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

WLF 90 ASP

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11-20-13

Date received

Time received

85530MA

7-35

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11-20-13

Date of shipment

Time of shipment

Trailer registration

Load#: 2

Signature of transporter

11-20-13

Date received

Time received

85530MA

7-35

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11-20-13

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903748

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier JMTS JMTS
Ticket Date 11/21/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/21/2013 08:05:00 | scale 1 inbou | eric metzler | | Tare | 106800 lb |
| Out | 11/21/2013 09:04:49 | scale 2 outbo | phil boisvert | | Net | 35000 lb |
| | | | | | Tons | 71800 lb |
| | | | | | | 35.90 |

Comments



| Product | LD% | Dty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-----|------|-------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | | Tons | 35.90 | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

JMTS 3

DISP

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11/21/13

Date received

Time received

6273 AP

Truck/Tractor registration

3590

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

23-46475

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903846

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier JMTS JMTS
Ticket Date 11/21/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/21/2013 12:30:21 | scale 1 inbou | eric metzler | | Tare | 95720 lb |
| Out | 11/21/2013 12:59:10 | scale 2 outbo | phil boisvert | | Net | 34760 lb |
| | | | | | Tons | 60960 lb |
| | | | | | | 30.48 |

Comments



| Product | LDX | Qty | UOM | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.48 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

JMTS-3

DISP

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
JMTS INC
Signature of transporter
11/21/13
Date received
6273 AP
Truck/Tractor registration
3590
Load size (cubic yards/tons)

[Signature]
Receiving facility
11/21/13
Date of shipment
23-46475
Trailer registration

Load#: 2
JMTS INC
Signature of transporter
11/21/13
Date received
6273 AP
Truck/Tractor registration
3048
Load size (cubic yards/tons)

[Signature]
Receiving facility
11/21/13
Date of shipment
23-46475
Trailer registration

Load#: _____
Signature of transporter
Date received _____ Time received _____
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment _____ Time of shipment _____
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 903768

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/21/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PQ
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|----------------------|---------|-------|----------|
| In | 11/21/2013 08:46:42 | scale 1 | inbou eric metzler | | Tare | 96900 lb |
| Out | 11/21/2013 09:19:10 | scale 2 | outbou phil boisvert | | Net | 36280 lb |
| | | | | | Tons | 60620 lb |
| | | | | | | 30.31 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.31 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



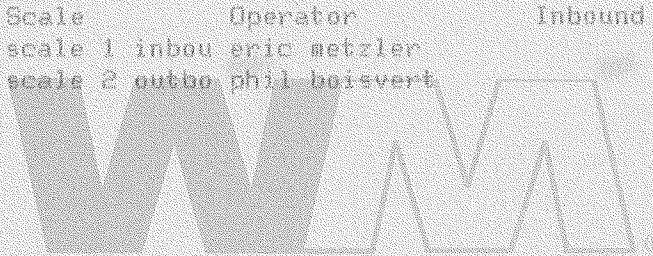
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903870

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/21/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/21/2013 13:14:11 | scale 1 inbou | eric metzler | | | 100600 lb |
| Out | 11/21/2013 13:49:42 | scale 2 outbo | phil boisvert | | Tare | 36060 lb |
| | | | | | Net | 64540 lb |
| | | | | | Tons | 32.27 |

Comments



WASTE MANAGEMENT

| Product | LDX | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 32.27 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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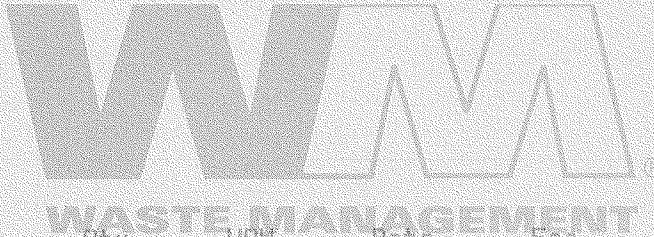
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903738

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/21/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|----------|----------|
| In | 11/21/2013 07:49:33 | scale 1 inbound | eric metzler | | 99500 lb | |
| Out | 11/21/2013 08:17:51 | scale 2 outbound | phil boisvert | | 38280 lb | |
| | | | | | Net | 61220 lb |
| | | | | | Tons | 30.61 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.61 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000



491491NH

Tracking Number

Note:
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J. Load Information

Load#: 1
Signature of transporter Robe
Date received 25000-MA Time received 30.61
Truck/Tractor registration 30.61
Load size (cubic yards/tons)

Receiving facility 11/21/13
Date of shipment 74-MA Time of shipment
Trailer registration

Load#: 2
Signature of transporter Robe
Date received 25000-MA Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility 11/21/13
Date of shipment 74-MA Time of shipment
Trailer registration

Load#: _____
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903823

Customer Name WLFRENCH EXCAV-491491NH WL Frs Carrier LL DT
Ticket Date 11/21/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|---------------|---------------|---------|-------|----------|
| In 11/21/2013 11:46:50 | scale 1 inbou | eric metzler | | Tare | 98800 lb |
| Out 11/21/2013 12:11:44 | scale 2 outbo | phil boisvert | | Net | 38000 lb |
| | | | | Tons | 60800 lb |
| | | | | | 30.40 |

Comments



| Product | LD% | Qty | DOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.40 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000



491491NH

Tracking Number

Note:
Make additional
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as necessary.

J. Load Information

Load#: 1
Signature of transporter Robe
Date received 5-000-MA Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility 11/21/13
Date of shipment 14-MA Time of shipment _____
Trailer registration _____

Load#: 2
Signature of transporter Robe
Date received 5-000-MA Time received _____
Truck/Tractor registration 3046
Load size (cubic yards/tons) _____

Receiving facility 11/21/13
Date of shipment 14-MA Time of shipment _____
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903771

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/21/2013 Vehicle# 41 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|-----------|
| In | 11/21/2013 09:01:16 | scale 1 | inbou eric metzler | | | 101400 lb |
| Out | 11/21/2013 09:24:25 | scale 2 | outbo phil boisvert | | Tare | 36460 lb |
| | | | | | Net | 64940 lb |
| | | | | | Tons | 32.47 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.47 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic

L & L 41



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

DISP

Note:
Make additional copies of this page as necessary.

J. Load Information

Load#: 1

Signature of transporter PC

Date received 11/21/13

Time received 6:324

Truck/Tractor registration 324

Load size (cubic yards/tons)

Receiving facility FME

Date of shipment 11/21/13

Time of shipment 62

Trailer registration

Load#: 2

Signature of transporter PC

Date received 11/21/13

Time received 6:324

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment 62

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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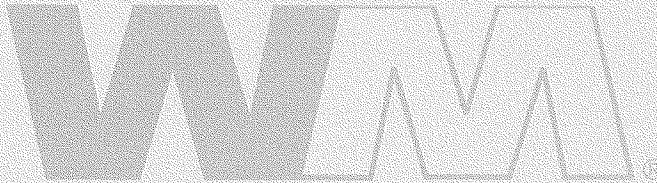
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903862

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/21/2013 Vehicle# 41 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/21/2013 12:59:12 | scale 1 inbou | eric metzler | | Tare | 99360 lb |
| Out | 11/21/2013 13:24:10 | scale 2 outbo | phil boisvert | | Net | 36280 lb |
| | | | | | Tons | 63080 lb |
| | | | | | | 31.54 |

Comments



| Product | LD% | City | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|------|------------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | | 31.54 Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

L & L 41



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

DISP

Note:
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as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903773

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier SF CHASE SF CHASE
Ticket Date 11/21/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/21/2013 09:13:22 | scale 1 inbou | eric metzler | | | 97840 lb |
| Out | 11/21/2013 09:40:41 | scale 2 outbo | phil boisvert | | | 35660 lb |
| | | | | | Net | 62180 lb |
| | | | | | Tons | 31.09 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.09 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.

SF 3



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903888

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier SF CHASE SF CHASE
Ticket Date 11/21/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PQ
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/21/2013 13:36:35 | scale 1 inbou | eric metzler | | Tare | 99120 lb |
| Out | 11/21/2013 14:13:34 | scale 2 outbo | phil boisvert | | Net | 35420 lb |
| | | | | | Tons | 63700 lb |
| | | | | | | 31.85 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.85 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

SF 3



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
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as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903743

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/21/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------------|---------------|---------|-------|----------|
| In | 11/21/2013 07:56:59 | scale 1 inbou | eric metzler | | Tare | 98800 lb |
| Out | 11/21/2013 08:32:23 | scale 2 outbou | phil boisvert | | Net | 36300 lb |
| | | | | | Tons | 62500 lb |
| | | | | | | 31.25 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.25 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 11/21/13 Time received F9TC9T
Truck/Tractor registration 3629
Load size (cubic yards/tons) 0

Receiving facility [Signature]
Date of shipment 11/21/13 Time of shipment
Trailer registration

Load#: 2
Signature of transporter [Signature]
Date received 11/21/13 Time received F9TC9T
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

Load#: _____
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Ticket# 903835

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/21/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|----------|----------|
| In | 11/21/2013 12:07:48 | scale 1 inbou | eric metzler | | 96660 lb | |
| Out | 11/21/2013 12:33:12 | scale 2 outbo | phil boisvert | | 35940 lb | |
| | | | | | Net | 60720 lb |
| | | | | | Tons | 30.36 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.36 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter [Signature]

Date received 11/21/13

Time received

Truck/Tractor registration F9TC9T

Load size (cubic yards/tons)

Load#: 2

Signature of transporter [Signature]

Date received 11/21/13

Time received

Truck/Tractor registration F9TC9T

Load size (cubic yards/tons) 30.36

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility [Signature]

Date of shipment 11/21/13

Time of shipment

Trailer registration

Receiving facility [Signature]

Date of shipment 11/21/13

Time of shipment

Trailer registration

Receiving facility _____

Date of shipment _____

Time of shipment _____

Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

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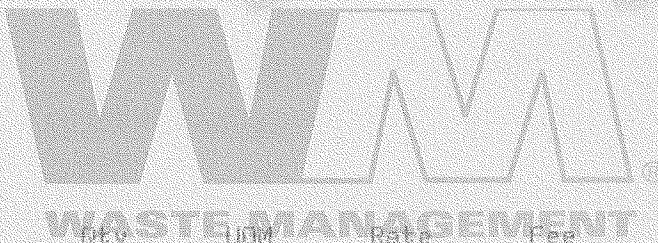
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903752

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier ROGERS ROGERS
Ticket Date 11/21/2013 Vehicle# 7 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO 093105562
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/21/2013 08:10:34 | scale 1 inbou | eric metzler | | Tare | 100360 lb |
| Out | 11/21/2013 08:45:24 | scale 2 outbo | phil boisvert | | Net | 36840 lb |
| | | | | | Tons | 63520 lb |
| | | | | | | 31.76 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.76 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

Reg 7



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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copies of this page
as necessary.

J. Load Information

Load#:

Bryan I. Douglas

Signature of transporter

11/21/13

Date received

Time received

6-2019

Truck/Tractor registration

Load size (cubic yards/tons)

31.76

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Bryan I. Douglas

Signature of transporter

11/21/13

Date received

Time received

6-2019

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



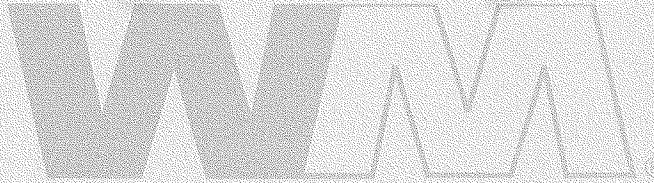
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903841

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier ROGERS ROGERS
Ticket Date 11/21/2013 Vehicle# 7 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO 093105562
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/21/2013 12:25:56 | scale 1 inbou | eric metzler | | Tare | 97380 lb |
| Out | 11/21/2013 12:50:21 | scale 2 outbo | phil boisvert | | Net | 36400 lb |
| | | | | | Tons | 60980 lb |
| | | | | | | 30.49 |

Comments



| Product | LD% | Qty | Unit | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.49 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

Reg 7



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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as necessary.

J. Load Information

Load#:

Bryan Douglas
Signature of transporter

11/21/13

Date received

62019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Bryan Douglas
Signature of transporter

11/21/13

Date received

62019

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903747

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier THOMPSON THOMPSON TRUCKING
Ticket Date 11/21/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/21/2013 08:04:00 | scale 1 inbou | eric matzler | | Tare | 103300 lb |
| Out | 11/21/2013 08:34:30 | scale 2 outbo | phil boisvert | | Net | 34960 lb |
| | | | | | Tons | 68340 lb |
| | | | | | | 34.17 |

Comments

WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 34.17 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
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as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903845

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier THOMPSON THOMPSON TRUCKING
Ticket Date 11/21/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/21/2013 12:29:14 | scale 1 inbou | eric metzler | | Tare | 97760 lb |
| Out | 11/21/2013 12:54:48 | scale 2 outbo | phil boisvert | | Net | 34740 lb |
| | | | | | Tons | 63020 lb |
| | | | | | | 31.51 |

Comments



| Product | LD% | LD% | LD% | LD% | LD% | Amount | Origin |
|----------------------|-----|-------|------|-----|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.51 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

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SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

| | |
|--------------|--|
| Total Fees | |
| Total Ticket | |

| Product | Lbs | Qty | Unit | Rate | Amount | Origin |
|------------------------|-----|-----|------|------------|--------|--------|
| Cont Soil Met-Tons 100 | | | | 30.82 Tons | | MIA |

31000000

| Time | Scale | Operator | Inbound | Gross |
|-------------------------|---------|---------------------|---------|----------|
| In 11/21/2013 07:50:21 | scale 1 | inbou eric metzler | Tare | 37700 lb |
| Out 11/21/2013 08:23:11 | scale 2 | outbo phil boisvert | Net | 61640 lb |
| | | | Tons | 30.82 |

| | | | |
|------------------|---|----------------|------------------------------------|
| Customer Name | WLFRENCHXC9V-491491NH WL Fre Carrier | VIGER MJ VIGER | Volume |
| Ticket Date | 11/21/2013 | Vehicle# | VIGER |
| Payment Type | Credit Account | Container | |
| Manual Ticket# | | Driver | |
| Hauling Ticket# | | Check# | |
| Route | | Billing # | 0113251 |
| State Waste Code | | Gen EPA ID | NOT REQUIRED |
| Manifest + | | PD | |
| Destination | | Profile | 491491NH (CONTAMINATED SOIL (DISPO |
| Generator | NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED | | |

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776
Ticket# 903739
Original



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

VIGER #1

DSP

Note:
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as necessary.

J. Load Information

Load#: 1
Signature of transporter M. J. Viger
Date received 11-21-13 Time received 7:13
Truck/Tractor registration 30.82
Load size (cubic yards/tons) 30.82

Receiving facility Tree
Date of shipment 11-21-13 Time of shipment 13:31
Trailer registration 13313

Load#: 2
Signature of transporter M. J. Viger
Date received 11-21-13 Time received 7:13
Truck/Tractor registration 30.82
Load size (cubic yards/tons) 30.82

Receiving facility TREE
Date of shipment 11-21-13 Time of shipment 13:31
Trailer registration 13313

Load#: 3
Signature of transporter M. J. Viger
Date received 11-21-13 Time received 7:13
Truck/Tractor registration 30.82
Load size (cubic yards/tons) 30.82

Receiving facility TREE
Date of shipment 11-21-13 Time of shipment 13:31
Trailer registration 13313

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
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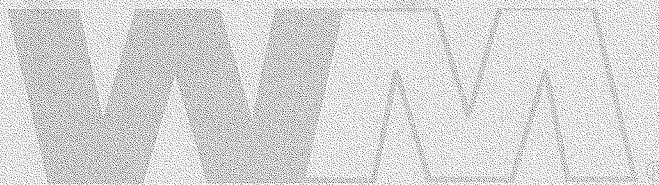
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903824

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier VIGER MJ VIGER
Ticket Date 11/21/2013 Vehicle# VIGER Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|----------|----------|
| In | 11/21/2013 11:47:53 | scale 1 inbou | eric metzler | | 92600 lb | |
| Out | 11/21/2013 12:24:38 | scale 2 outbo | phil boisvert | | 37400 lb | |
| | | | | | Net | 55200 lb |
| | | | | | Tons | 27.60 |

Comments:



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 27.60 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

VIGER #1

DSP

Note:
Make additional
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as necessary.

J. Load Information

Load#: 1
Signature of transporter M. J. Viger
Date received 11-21-13 Time received 7:31:3
Truck/Tractor registration 71313
Load size (cubic yards/tons)

Receiving facility Tree
Date of shipment 11-21-13 Time of shipment 13:31:3
Trailer registration

Load#: 2
Signature of transporter M. J. Viger
Date received 11-21-13 Time received 7:31:3
Truck/Tractor registration 27.60
Load size (cubic yards/tons)

Receiving facility Tree
Date of shipment 11-21-13 Time of shipment 13:31:3
Trailer registration

Load#: 3
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility TREE
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903858

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/21/2013 Vehicle# 82 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/21/2013 12:54:03 | scale 1 inbou | eric metzler | | Tare | 101440 lb |
| Out | 11/21/2013 13:45:38 | scale 2 outbo | phil boisvert | | Net | 37400 lb |
| | | | | | Tons | 64040 lb |
| | | | | | | 32.02 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.02 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



82



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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J. Load Information

Load#: _____

Signature of transporter

Date received

Time received

Receiving facility

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Receiving facility

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903763

Customer Name WLFRENCHEXDAY-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/21/2013 Vehicle# 86 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/21/2013 08:38:56 | scale 1 inbou | eric metzler | | | 101260 lb |
| Out | 11/21/2013 09:07:50 | scale 2 outbo | phil boisvert | | Tare | 37680 lb |
| | | | | | Net | 63580 lb |
| | | | | | Tons | 31.79 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.79 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

WLF 86



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
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as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 11/21/13 Time received _____
83873
Truck/Tractor registration 31-79
Load size (cubic yards/tons) _____

Receiving facility [Signature]
Date of shipment 11/21/13 Time of shipment _____
Trailer registration _____

Load#: 2
Signature of transporter [Signature]
Date received 11/21/13 Time received _____
83873
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility [Signature]
Date of shipment 11/21/13 Time of shipment _____
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903857

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/21/2013 Vehicle# 86 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest + PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/21/2013 12:53:04 | scale 1 | inbou eric metzler | | | 99200 lb |
| Out | 11/21/2013 13:42:36 | scale 2 | outbo phil boisvert | | | 37380 lb |
| | | | | | Net | 61820 lb |
| | | | | | Tons | 30.91 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.91 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

LL21



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

491491NH

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

SUMMARY SHEET

OF

☐ - ☐

| | | | |
|---|--|---|--|
| I. LOAD INFORMATION: Signature of Transporter Representative: <i>[Signature]</i> Load 1: Date of Shipment: <i>12/13</i> Time of Shipment: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): <i>68</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> Date of Receipt: <i>11/13/13</i> Time of Receipt: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>31.59</i> | |
| Load 2: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>12/13</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): <i>68</i> | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| Load 3: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>12/13</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| Load 4: Signature of Transporter Representative: Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| Load 5: Signature of Transporter Representative: Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |
| Load 6: Signature of Transporter Representative: Date of Shipment: Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: Trailer Registration (if any): | | Receiving Facility/Temporary Storage Representative: Date of Receipt: Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): | |

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons):
 Total Carried Forward (cu. yds./tons):
 Total Carried Forward and This Page (cu. yds./tons):



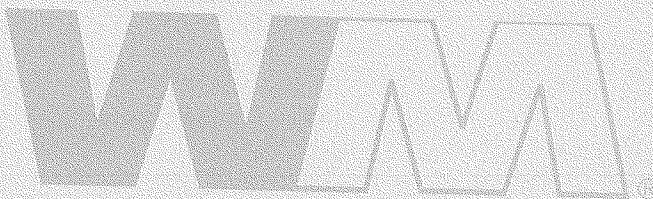
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH 03839
Ph: (800) 963-4776

Original
Ticket# 902407

Customer Name WLFRENCH EXCAV-491491NH HL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/13/2013 12:26:42 | scale 1 | inbou phil boisvert | | | 94360 lb |
| Out | 11/13/2013 13:01:28 | scale 2 | outbo eric metzler | | Tare | 36180 lb |
| | | | | | Net | 58180 lb |
| | | | | | Tons | 29.09 |

Comments



| Product | LDX | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 29.09 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

LL21



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

SUMMARY SHEET _____ **OF** _____

☐ - ☐

| | | | |
|--|--|---|--|
| I. LOAD INFORMATION: Signature of Transporter Representative: <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> | |
| Load 1: Date of Shipment: <i>13/13</i> Time of Shipment: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): <i>64</i> | Date of Receipt: <i>11/13/13</i> Time of Receipt: <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | | |
| Load 2: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>18/13</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): <i>64</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> Date of Receipt: <i>11/13/13</i> Time of Receipt: <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | |
| Load 3: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>[Signature]</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>72079</i> Trailer Registration (if any): <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> Date of Receipt: <i>[Signature]</i> Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | |
| Load 4: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>[Signature]</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>[Signature]</i> Trailer Registration (if any): <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> Date of Receipt: <i>[Signature]</i> Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | |
| Load 5: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>[Signature]</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>[Signature]</i> Trailer Registration (if any): <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> Date of Receipt: <i>[Signature]</i> Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | |
| Load 6: Signature of Transporter Representative: <i>[Signature]</i> Date of Shipment: <i>[Signature]</i> Time of Shipment: <input type="checkbox"/> AM <input type="checkbox"/> PM Truck/Tractor Registration: <i>[Signature]</i> Trailer Registration (if any): <i>[Signature]</i> | | Receiving Facility/Temporary Storage Representative: <i>[Signature]</i> Date of Receipt: <i>[Signature]</i> Time of Receipt: <input type="checkbox"/> AM <input type="checkbox"/> PM Load Size (cu. yds./tons): <i>[Signature]</i> | |

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons): _____

Total Carried Forward (cu. yds./tons): _____

Total Carried Forward and This Page (cu. yds./tons): _____



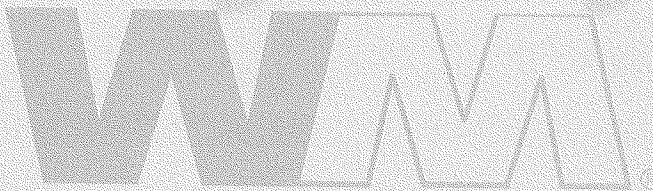
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902317

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/13/2013 08:21:03 | scale 1 | inbou phil boisvert | | | 96060 lb |
| Out | 11/13/2013 08:47:52 | scale 2 | outbo eric metzler | | Tare | 35720 lb |
| | | | | | Net | 60340 lb |
| | | | | | Tons | 30.17 |

Comments



| Product | LD% | Qty | Unit | Amount | Origin |
|--------------------------|-----|-------|------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.17 | Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

LL22

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902408

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:36:48 | scale 1 inbou | phil boisvert | | | 99800 lb |
| Out | 11/13/2013 13:07:03 | scale 2 outbo | eric metzler | | Tare | 34960 lb |
| | | | | | Net | 64840 lb |
| | | | | | Tons | 32.42 |

Comments



| Product | LDX | Dty | UDM | Rate | Fees | Amount | Origin |
|--------------------------|-----|-----|-----|------------|------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | | | 32.42 Tons | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

LL22

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 11/13/13

Truck/Tractor registration 67324

Load size (cubic yards/tons) 32.412

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration 62

Time of shipment

Load#: 2

Signature of transporter [Signature]

Date received 11/13/13

Truck/Tractor registration 67324

Load size (cubic yards/tons) 32.412

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration 62

Time of shipment

Load#: _____

Signature of transporter _____

Date received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Trailer registration _____

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902301

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/13/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 07:52:57 | scale 1 inbou | phil boisvert | | Tare | 99180 lb |
| Out | 11/13/2013 08:17:31 | scale 2 outbo | eric metzler | | Net | 36200 lb |
| | | | | | Tons | 62980 lb |
| | | | | | | 31.49 |

Comments



| Product | LD% | Waste | Amount | Origin |
|--------------------------|-----|------------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.49 Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MT 10

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

1

Signature of transporter

11/13/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

2

Signature of transporter

11/13/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Ticket# 902401

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/13/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|-----------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:08:00 | scale 1 inbound | phil boisvert | | | 93960 lb |
| Out | 11/13/2013 12:37:00 | scale 2 outbo | eric metzler | | Tare | 35880 lb |
| | | | | | Net | 58080 lb |
| | | | | | Tons | 29.04 |

Comments



| Product | LD% | WASTE MANAGEMENT | Amount | Origin |
|--------------------------|-----|------------------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 29.04 Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTCL0

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter

11/13/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

11/13/13

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/13/13

Date of shipment

AM

Time of shipment

Trailer registration

Receiving facility

11/13/13

Date of shipment

PM

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 902312

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|---------------|---------------|---------|-------|----------|
| In 11/13/2013 08:13:38 | scale 1 inbou | phil boisvert | | | 99400 lb |
| Out 11/13/2013 08:55:37 | scale 2 outbo | eric metzler | | Tare | 35420 lb |
| | | | | Net | 63980 lb |
| | | | | Tons | 31.99 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|------------|-----|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.99 Tons | | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-13-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 31.99

Receiving facility [Signature]
Date of shipment 11/13/13 Time of shipment _____
Trailer registration 88099

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902409

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:40:27 | scale 1 inbou | phil boisvert | | Tare | 97980 lb |
| Out | 11/13/2013 13:22:34 | scale 2 outbo | eric metzler | | Net | 35140 lb |
| | | | | | Tons | 62840 lb |
| | | | | | | 31.42 |

Comments



| Product | LD% | Qty | DOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.42 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 11-13-13

Truck/Tractor registration 84808

Load size (cubic yards/tons)

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration 88099

Time of shipment

Load#: 2

Signature of transporter [Signature]

Date received 11-13-13

Truck/Tractor registration 84808

Load size (cubic yards/tons)

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration 88099

Time of shipment

Load#: _____

Signature of transporter _____

Date received _____

Truck/Tractor registration _____

Load size (cubic yards/tons)

Receiving facility _____

Date of shipment _____

Trailer registration _____

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902309

Customer Name WLFRENCHEXCAV-491491NH WL Fro Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 08:02:38 | scale 1 inbou | phil boisvert | | Tare | 38720 lb |
| Out | 11/13/2013 08:38:15 | scale 2 outbo | eric metzler | | Net | 36480 lb |
| | | | | | Tons | 62240 lb |
| | | | | | | 31.12 |

Comments



| Product | LD% | Qty | WASTE MANAGEMENT | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------------------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.12 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

WL 93



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:
Signature of transporter *[Signature]*
Date received 11/13/13 Time received
Truck/Tractor registration 88099
Load size (cubic yards/tons) 31.12

Receiving facility *[Signature]*
Date of shipment 11/13/13 Time of shipment
Trailer registration T65

Load#: 2
Signature of transporter *[Signature]*
Date received 11/13/13 Time received
Truck/Tractor registration 88099
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration T55

Load#:
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page of



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902406

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/13/2013 12:21:40 | scale 1 inbou | phil boisvert | | Tare | 102020 lb |
| Out | 11/13/2013 13:21:09 | scale 2 outbo | eric metzler | | Net | 36240 lb |
| | | | | | Tons | 65780 lb |
| | | | | | | 32.89 |

Comments



| Product | LDX | Qty | UOM | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.89 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902302

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 07:54:14 | scale 1 inbou | phil boisvert | | Tare | 98640 lb |
| Out | 11/13/2013 08:23:45 | scale 2 outbo | eric metzler | | Net | 37520 lb |
| | | | | | Tons | 61120 lb |
| | | | | | | 30.56 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.56 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

11/1 11/1

Wh 95



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11/13/13 Time received Am
Truck/Tractor registration 85808
Load size (cubic yards/tons) 30.56

Receiving facility [Signature]
Date of shipment 11/13/13 Time of shipment Am
Trailer registration 7-45

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902400

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/13/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:04:58 | scale 1 inbou | phil boisvert | | Tare | 99380 lb |
| Out | 11/13/2013 13:04:39 | scale 2 outbo | eric metzler | | Net | 37480 lb |
| | | | | | Tons | 61900 lb |
| | | | | | | 30.95 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.95 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 11/13/13

Truck/Tractor registration 85808

Load size (cubic yards/tons) 8

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration T-45

Time of shipment 4:45

Load#: 2

Signature of transporter [Signature]

Date received 11/13/13

Truck/Tractor registration 85808

Load size (cubic yards/tons) 30.95

Receiving facility [Signature]

Date of shipment 11/13/13

Trailer registration T-45

Time of shipment PM

Load#: _____

Signature of transporter _____

Date received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Trailer registration _____

Time of shipment _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902570

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier AXL AXL
Ticket Date 11/14/2013 Vehicle# 17 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/14/2013 08:54:23 | scale 1 | inbou phil boisvert | | Tare | 92400 lb |
| Out | 11/14/2013 09:34:09 | scale 2 | outbo eric metzler | | Net | 37060 lb |
| | | | | | Tons | 55340 lb |
| | | | | | | 27.67 |

Comments

WM
WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 27.67 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Dr405WM-GonicSignature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter AXL
Date received 11/14/17 Time received 7:00 AM
Truck/Tractor registration AXL 17
Load size (cubic yards/tons) 27.67

Receiving facility TURKEY LANDFILL Phil
Date of shipment 11/14/17 Time of shipment 7:00 AM
Trailer registration AXL 17

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



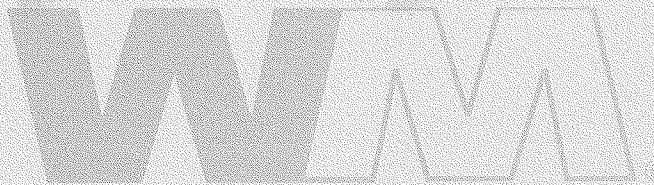
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902670

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier AXL AXL
Ticket Date 11/14/2013 Vehicle# 17 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 13:26:27 | scale 1 inbou | phil boisvert | | Tare | 31880 lb |
| Out | 11/14/2013 14:07:00 | scale 2 outbo | eric metzler | | Net | 36700 lb |
| | | | | | Tons | 55100 lb |
| | | | | | | 27.59 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 27.59 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

AXL 17

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11/14/13

Date received

7:00 AM

Time received

AXL 17

Truck/Tractor registration

Load size (cubic yards/tons) 27.59

Receiving facility

11/14/13

Date of shipment

7:00 AM

Time of shipment

AXL 17

Trailer registration

Load#: 2

Signature of transporter

11/14/13

Date received

11:30 AM

Time received

AXL 17

Truck/Tractor registration

Load size (cubic yards/tons) 27.59

Receiving facility

11/14/13

Date of shipment

11:30 AM

Time of shipment

AXL 17

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



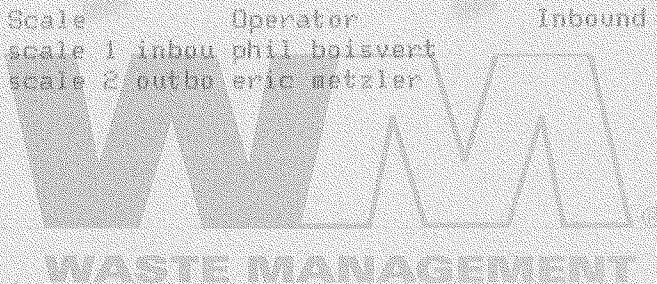
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902569

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier EMERSON
Ticket Date 11/14/2013 Vehicle# BLACK Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|----------|----------|
| In | 11/14/2013 08:52:24 | scale 1 inbound | phil boisvert | | 98180 lb | |
| Out | 11/14/2013 09:27:19 | scale 2 outbound | eric metzler | | 40660 lb | |
| | | | | | Net | 57520 lb |
| | | | | | Tons | 28.76 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 28.76 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

D:\405WM-Gonic\Signature

[Signature] AXH

Emerson



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
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J. Load Information

Load#: 1
Signature of transporter Leung Epikran AXH
Date received 11/14/13 Time received 6:45 AM
Truck/Tractor registration 7243 AR NH
Load size (cubic yards/tons) 28.76

Receiving facility Turnkey Land Fill Phil B
Date of shipment 11/14/13 Time of shipment me
Trailer registration 1781102

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH 03839
Ph: (800) 963-4776

Original
Ticket# 902668

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier EMERSON
Ticket Date 11/14/2013 Vehicle# BLACK Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 13:25:37 | scale 1 inbou | phil boisvert | | Tare | 92440 lb |
| Out | 11/14/2013 14:03:01 | scale 2 outbo | eric metzler | | Net | 40320 lb |
| | | | | | Tons | 52120 lb |
| | | | | | | 26.06 |

Comments



| Product | LD% | City | LD% | Rate | Fee | Amount | Origin |
|----------------------|-----|------|-----|-------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | | | 26.06 | Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

[Signature] AXH

Emerson



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter Henry Emerson AXH
Date received 11/14/13 Time received 6:45 AM
Truck/Tractor registration 2243 AR NH

Receiving facility Turnkey Land fill PhilB
Date of shipment 11/14/13 Time of shipment me
Trailer registration 1781102

Load size (cubic yards/tons) 2606

Load#: 2
Signature of transporter Henry Emerson AXH
Date received 11/14/13 Time received 11:15 AM
Truck/Tractor registration 2243 AR NH
Load size (cubic yards/tons) 2606

Receiving facility Turnkey Land fill PhilB
Date of shipment 11/14/13 Time of shipment me
Trailer registration 1781102

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Time of shipment _____

Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 953-4776

Original
Ticket# 902551

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 08:04:06 | scale 1 inbou | phil boisvert | | Tare | 93000 lb |
| Out | 11/14/2013 08:34:40 | scale 2 outbo | eric metzler | | Net | 36380 lb |
| | | | | | Tons | 56620 lb |
| | | | | | | 28.31 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 28.31 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL 21

Note:
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as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 14/1/13 Time received 7:20
Truck/Tractor registration 79
Load size (cubic yards/tons) 28.31

Receiving facility [Signature]
Date of shipment 1/1/13 Time of shipment 64
Trailer registration 64

Load#: 2
Signature of transporter [Signature]
Date received 14/1/13 Time received 7:20
Truck/Tractor registration 79
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration 64

Load#:
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902642

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 12:09:55 | scale 1 inbou | phil boisvert | | Tare | 99380 lb |
| Out | 11/14/2013 12:41:27 | scale 2 outbo | eric metzier | | Net | 36000 lb |
| | | | | | Tons | 63300 lb |
| | | | | | | 31.65 |

Comments

WM
WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.65 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL 21

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter: [Signature]
Date received: 11/13 Time received: 7:20
Truck/Tractor registration: 79
Load size (cubic yards/tons): 720

Receiving facility: [Signature]
Date of shipment: 11/13 Time of shipment: 64
Trailer registration: 64

Load#: 2
Signature of transporter: [Signature]
Date received: 11/13 Time received: 7:20
Truck/Tractor registration: 79
Load size (cubic yards/tons): 31.65

Receiving facility: [Signature]
Date of shipment: 11/13 Time of shipment: 64
Trailer registration: 64

Load#: _____
Signature of transporter: _____
Date received: _____ Time received: _____
Truck/Tractor registration: _____
Load size (cubic yards/tons): _____

Receiving facility: _____
Date of shipment: _____ Time of shipment: _____
Trailer registration: _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



TurnKey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902559

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 08:21:05 | scale 1 inbou | phil boisvert | | Tare | 98660 lb |
| Out | 11/14/2013 09:03:47 | scale 2 outbo | eric metzler | | Net | 35260 lb |
| | | | | | Tons | 63400 lb |
| | | | | | | 31.70 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.70 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.

L&L 22



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: _____

Signature of transporter

11/14/13

Date received

67324

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

31.70

Receiving facility

11/14/13

Date of shipment

62

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

11/14/13

Date received

67324

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

62

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



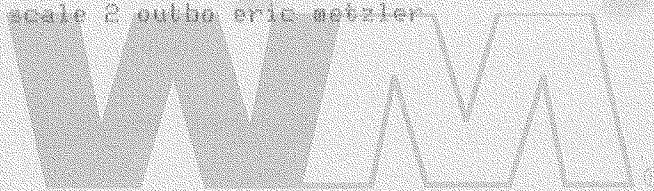
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902645

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/14/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|------------------|---------------|---------|-------|----------|
| In | 11/14/2013 12:25:07 | scale 1 inbound | phil boisvert | | | 98300 lb |
| Out | 11/14/2013 12:51:18 | scale 2 outbound | eric metzler | | | 34940 lb |
| | | | | | Net | 63360 lb |
| | | | | | Tons | 31.68 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.68 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.

L&L 22



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH

Tracking Number

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902549

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/14/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 08:01:21 | scale 1 inbou | phil boisvert | | | 93000 lb |
| Out | 11/14/2013 08:28:55 | scale 2 outbo | eric metzler | | Tare | 35700 lb |
| | | | | | Net | 58100 lb |
| | | | | | Tons | 29.05 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 29.05 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTCL0

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 11/14/13

Time received AM

Receiving facility [Signature]

Date of shipment 11/14/13

Time of shipment AM

Truck/Tractor registration Fatcat

Trailer registration

Load size (cubic yards/tons) 29.05

Load#: 2

Signature of transporter [Signature]

Date received 11/14/13

Time received Fatcat

Receiving facility

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902641

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/14/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/14/2013 12:06:52 | scale 1 | inbou phil boisvert | | Tare | 98320 lb |
| Out | 11/14/2013 12:39:51 | scale 2 | outbo eric metzler | | Net | 35760 lb |
| | | | | | Tons | 62560 lb |
| | | | | | | 31.28 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.28 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTK 10

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11/14/13
Date received

AM
Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

11/14/13
Date received

AM
Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/14/13
Date of shipment

AM
Time of shipment

Trailer registration

Receiving facility

11/14/13
Date of shipment

PM
Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03039
Ph: (800) 963-4775

Original
Ticket# 902556

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - MED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/14/2013 08:16:41 | scale 1 inbou | phil boisvert | | | 100340 lb |
| Out | 11/14/2013 08:53:55 | scale 2 outbo | eric metzler | | Tare | 35400 lb |
| | | | | | Net | 64940 lb |
| | | | | | Tons | 32.47 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.47 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-14-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 32.47

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 85299

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902650

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/14/2013 12:41:27 | scale 1 inbou | phil boisvert | | Tare | 98700 lb |
| Out | 11/14/2013 13:23:53 | scale 2 outbo | eric metzler | | Net | 35120 lb |
| | | | | | Tons | 63580 lb |
| | | | | | | 31.79 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.79 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-14-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 0

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 88099

Load#: 2
Signature of transporter [Signature]
Date received 11-14-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 31.79

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 88099

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902557

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|-----------|
| In | 11/14/2013 08:17:45 | scale 1 | inbou phil boisvert | | Tare | 104480 lb |
| Out | 11/14/2013 08:57:23 | scale 2 | outbo eric metzler | | Net | 36500 lb |
| | | | | | Tons | 67980 lb |
| | | | | | | 33.99 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 33.99 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

WLF90

J. Load Information

Note:
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as necessary.

Load#: 1

Signature of transporter

11-14-13

Date received

85520MA

Truck/Tractor registration

Time received

7-35

Load size (cubic yards/tons)

33.99

Receiving facility

11/14/13

Date of shipment

Time of shipment

Trailer registration

Load#: 2

Signature of transporter

11-14-13

Date received

85520MA

Truck/Tractor registration

Time received

7-35

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



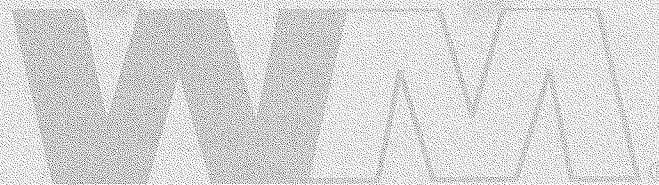
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902651

Customer Name WLFRENCHEXDAY-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 90 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/14/2013 12:42:22 | scale 1 inbou | phil boisvert | | Tare | 101140 lb |
| Out | 11/14/2013 13:25:04 | scale 2 outbo | eric metzler | | Net | 36260 lb |
| | | | | | Tons | 64880 lb |
| | | | | | | 32.44 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 32.44 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

WLF90

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11-14-13

Date received

85520MA

Time received

7-35

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

11-14-13

Date received

85520MA

Time received

7-35

Truck/Tractor registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902558

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------------|---------------|---------|-------|-----------|
| In | 11/14/2013 08:19:46 | scale 1 inbou | phil boisvert | | Tare | 101120 lb |
| Out | 11/14/2013 09:00:39 | scale 2 outbou | eric metzler | | Net | 36660 lb |
| | | | | | Tons | 64460 lb |
| | | | | | | 32.23 |

Comments

WASTE MANAGEMENT

| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.23 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11/14/13 Time received _____
Truck/Tractor registration 58098
Load size (cubic yards/tons) 32.83

Receiving facility [Signature]
Date of shipment 11/14/13 Time of shipment _____
Trailer registration 155

Load#: 2
Signature of transporter [Signature]
Date received 11/14/13 Time received _____
Truck/Tractor registration 58098
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration 155

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Jugkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902652

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/14/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|-----------|
| In | 11/14/2013 12:43:29 | scale 1 | inbou phil boisvert | | Tare | 100840 lb |
| Out | 11/14/2013 13:28:31 | scale 2 | outbo eric metzler | | Net | 36560 lb |
| | | | | | Tons | 64280 lb |
| | | | | | | 32.14 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.14 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE, THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1

Signature of transporter [Signature]

Date received 11/14/13

Truck/Tractor registration 88099

Load size (cubic yards/tons) 0

Receiving facility [Signature]

Date of shipment 11/14/13

Trailer registration 755

Time of shipment

Load#: 2

Signature of transporter [Signature]

Date received 11/14/13

Truck/Tractor registration 88099

Load size (cubic yards/tons) 32.14

Receiving facility [Signature]

Date of shipment 11/14/13

Trailer registration 755

Time of shipment

Load#: _____

Signature of transporter _____

Date received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Trailer registration _____

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902083

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier JR JR CONSTRUCTION
Ticket Date 11/12/2013 Vehicle# 23 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/12/2013 09:08:31 | scale 1 | inbou phil boisvert | | Tare | 98180 lb |
| Out | 11/12/2013 09:45:53 | scale 2 | outbo eric metzler | | Net | 38060 lb |
| | | | | | Tons | 60120 lb |
| | | | | | | 30.06 |

Comments



WASTE MANAGEMENT

| Product | LDX | Qty | UDM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.06 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

23

491491NH

Tracking Number

J. Load Information

Note:
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as necessary.

Load#: ①
JR CONST. #23
Signature of transporter
11-12-13
Date received
79511
Truck/Tractor registration

TURNKEY CF Phil B
Receiving facility
11-12-13
Date of shipment
172003
Trailer registration

Load size (cubic yards/tons) 0

Load#: ②
J.R. CONST. #23
Signature of transporter
11-12-13
Date received
79511
Truck/Tractor registration

TURNKEY CF
Receiving facility
11-12-13
Date of shipment
172003
Trailer registration

Load size (cubic yards/tons)

Load#: _____
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902195

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier JR JR CONSTRUCTION
Ticket Date 11/12/2013 Vehicle# 23 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 13:19:56 | scale 1 inbou | PHIL BOISVERT | | Tare | 99480 lb |
| Out | 11/12/2013 13:53:21 | scale 2 outbo | eric metzler | | Net | 37840 lb |
| | | | | | Tons | 61640 lb |
| | | | | | | 30.82 |

Comments



| Product | LD% | Qty | Rate | Fees | Amount | Origin |
|--------------------------|-----|-------|------|------|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 30.82 | Tons | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

23

Note:
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copies of this page
as necessary.

J. Load Information

Load#: ① JR CONST #23
Signature of transporter [Signature]
Date received 11-12-13 Time received 7:51
Truck/Tractor registration 79511
Load size (cubic yards/tons) 0

Receiving facility TURNKEY CF Phil
Date of shipment 11-12-13 Time of shipment 172003
Trailer registration

Load#: ② J.R. CONST. #23
Signature of transporter [Signature]
Date received 11-12-13 Time received PM
Truck/Tractor registration 79511
Load size (cubic yards/tons) 30.87

Receiving facility TURNKEY CF Phil
Date of shipment 11-12-13 Time of shipment PM
Trailer registration 172003

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

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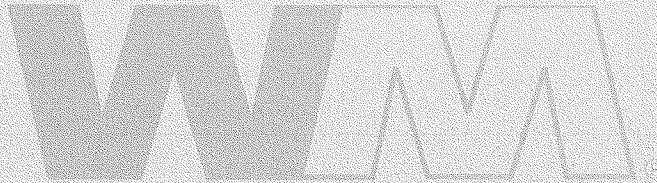
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902093

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 09:37:48 | scale 1 inbou | phil boisvert | | Tare | 105260 lb |
| Out | 11/12/2013 10:12:24 | scale 2 outbo | eric metzler | | Net | 36320 lb |
| | | | | | Tons | 68940 lb |
| | | | | | | 34.47 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 34.47 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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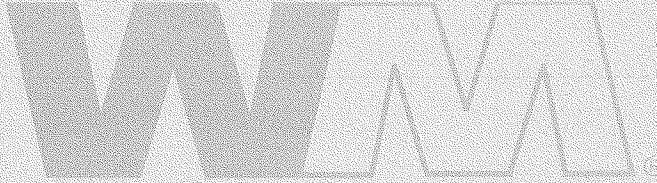
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902222

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 14:02:17 | scale 1 inbou | PHIL BOISVERT | | Tare | 100920 lb |
| Out | 11/12/2013 14:36:57 | scale 2 outbo | eric metzler | | Net | 35000 lb |
| | | | | | Tons | 64920 lb |
| | | | | | | 32.46 |

Comments



| Product | LD% | Qty | UDM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.46 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 12/13

Time received AM

Truck/Tractor registration 72079

Load size (cubic yards/tons) 0

Load#: 2

Signature of transporter [Signature]

Date received 12/13

Time received PM

Truck/Tractor registration 72079

Load size (cubic yards/tons) 32.46

Receiving facility [Signature]

Date of shipment 11/12/13

Time of shipment AM

Trailer registration 64

Receiving facility [Signature]

Date of shipment 11/12/13

Time of shipment PM

Trailer registration 64

Load#: _____

Signature of transporter _____

Date received _____

Time received _____

Truck/Tractor registration _____

Load size (cubic yards/tons) _____

Receiving facility _____

Date of shipment _____

Time of shipment _____

Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902088

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/12/2013 09:20:49 | scale 1 | inbou phil boisvert | | Tare | 98020 lb |
| Out | 11/12/2013 09:50:10 | scale 2 | outbo eric metzler | | Net | 35200 lb |
| | | | | | Tons | 62820 lb |
| | | | | | | 31.41 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.41 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL22

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter PC

Date received 11/12/13

Truck/Tractor registration 67324

Load size (cubic yards/tons) 31.41

Time received AM

Receiving facility Thurston

Date of shipment 11/12/13

Trailer registration 62

Time of shipment AM

Load#: 2

Signature of transporter PC

Date received 11/12/13

Truck/Tractor registration 67324

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902204

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 13:35:22 | scale 1 inbou | PHIL BDISVERT | | Tare | 100620 lb |
| Out | 11/12/2013 14:13:48 | scale 2 outbo | eric metzler | | Net | 34900 lb |
| | | | | | Tons | 65720 lb |
| | | | | | | 32.86 |

Comments



| Product | LD% | City | WASTE MANAGEMENT | Rate | Fees | Amount | Origin |
|----------------------|-----|------|------------------|-------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | | | 32.86 | Tons | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

LL22

J. Load Information

Note:
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as necessary.

Load#:

1

Signature of transporter

11/12/13

Date received

67324

Truck/Tractor registration

Time received

AM

Receiving facility

11/12/13

Date of shipment

62

Trailer registration

Time of shipment

AM

Load size (cubic yards/tons)

Load#:

2

Signature of transporter

11/12/13

Date received

67324

Truck/Tractor registration

Time received

PM

Receiving facility

11/12/13

Date of shipment

62

Trailer registration

Time of shipment

PM

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902139

Customer Name WLFRENCHCAV-491491NH WL Fra Carrier SF CHASE SF CHASE
Ticket Date 11/12/2013 Vehicle# 3 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 11:20:10 | scale 1 inbou | PHIL BOISVERT | | | 100540 lb |
| Out | 11/12/2013 12:10:53 | scale 2 outbo | eric metzler | | Tare | 35620 lb |
| | | | | | Net | 64920 lb |
| | | | | | Tons | 32.46 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 32.46 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

SF 3

491491NH

Tracking Number

J. Load Information

Note:
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as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902140

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier TEMP ANY CARRIER
Ticket Date 11/12/2013 Vehicle# EMMERSON Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|---------------|---------------|---------|-------|-----------|
| In 11/12/2013 11:22:37 | scale 1 inbou | PHIL BOISVERT | | Tare | 100520 lb |
| Out 11/12/2013 12:09:25 | scale 2 outbo | eric metzler | | Net | 40540 lb |
| | | | | Tons | 59980 lb |
| | | | | | 29.99 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 29.99 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Emerson

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter
Kerry Emerson

11/12/13

Date received

9:30 AM

Time received

2243 AR NH

Truck/Tractor registration

Load size (cubic yards/tons)

29.99

Turnkey Land Fill

Receiving facility

11/12/13

Date of shipment

AM

Time of shipment

1781102 ME

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



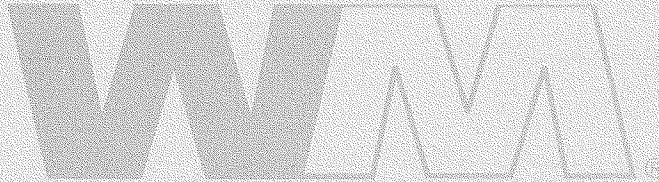
Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902069

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/12/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 08:31:50 | scale 1 inbou | phil boisvert | | Tare | 97320 lb |
| Out | 11/12/2013 08:57:39 | scale 2 outbo | eric metzler | | Net | 35820 lb |
| | | | | | Tons | 61500 lb |
| | | | | | | 30.75 |

Comments



| Product | LD% | Qty | Unit | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 30.75 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTL 10

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902163

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier MTC
Ticket Date 11/12/2013 Vehicle# 10 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 12:46:04 | scale 1 inbou | PHIL BOISVERT | | | 99660 lb |
| Out | 11/12/2013 13:14:14 | scale 2 outbu | eric metzler | | Tare | 35500 lb |
| | | | | | Net | 64160 lb |
| | | | | | Tons | 32.08 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 32.08 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

MTL 10

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Tyrnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902071

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------|---------------------|---------|-------|----------|
| In | 11/12/2013 08:38:48 | scale 1 | inbou phil boisvert | | | 98920 lb |
| Out | 11/12/2013 09:11:41 | scale 2 | outbo eric metzler | | Tare | 35420 lb |
| | | | | | Net | 63500 lb |
| | | | | | Tons | 31.75 |

Comments



| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.75 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature
405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

87

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902179

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 87 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PG
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 13:03:49 | scale 1 inbou | PHIL BOISVERT | | Tare | 98260 lb |
| Out | 11/12/2013 13:38:26 | scale 2 outbo | eric metzler | | Net | 35240 lb |
| | | | | | Tons | 63020 lb |
| | | | | | | 31.51 |

Comments



| Product | LDX | Qty | WASTE MANAGEMENT | Rate | Fees | Amount | Origin |
|---------|--------------------|-----|------------------|------|------|--------|--------|
| 1 | Cont Soil Met-Tons | 100 | 31.51 | Tons | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

87
491491NH
Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 11-12-13 Time received _____
Truck/Tractor registration 84808
Load size (cubic yards/tons) 0

Receiving facility [Signature]
Date of shipment 11/12/13 Time of shipment _____
Trailer registration 88099

Load#: 2
Signature of transporter [Signature]
Date received 11-12-13 Time received PM
Truck/Tractor registration 84808
Load size (cubic yards/tons) 3151

Receiving facility [Signature]
Date of shipment 11/12/13 Time of shipment PM
Trailer registration 88099

Load#: _____
Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902076

Customer Name WLFRENCHXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 08:51:44 | scale 1 inbou | phil boisvert | | Tare | 101060 lb |
| Out | 11/12/2013 09:22:55 | scale 2 outbo | eric metzler | | Net | 36500 lb |
| | | | | | Tons | 64560 lb |
| | | | | | | 32.28 |

Comments



| Product | LD% | Qty | WASTE MANAGEMENT | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------------------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 32.28 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

93

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

[Signature]

Signature of transporter

11/12/13

Date received

AM

Time received

88049

Truck/Tractor registration

32.28

Load size (cubic yards/tons)

[Signature]

Receiving facility

11/12/13

Date of shipment

AM

Time of shipment

755

Trailer registration

Load#:

[Signature]

Signature of transporter

11/14/13

Date received

Time received

88049

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

755

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902188

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 93 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 13:11:47 | scale 1 inbou | PHIL BOISVERT | | Tare | 100040 lb |
| Out | 11/12/2013 13:42:06 | scale 2 outbo | eric metzler | | Net | 36180 lb |
| | | | | | Tons | 63860 lb |
| | | | | | | 31.93 |

Comments



| Product | LD% | Qty | Unit | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.93 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

93

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

AM

Receiving facility

Date of shipment

Trailer registration

AM

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

AM

Receiving facility

Date of shipment

Trailer registration

AM

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902080

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/12/2013 08:58:39 | scale 1 inbou | phil boisvert | | Tare | 99920 lb |
| Out | 11/12/2013 09:24:21 | scale 2 outbo | eric metzler | | Net | 37400 lb |
| | | | | | Tons | 62520 lb |
| | | | | | | 31.26 |

Comments



| Product | LD% | WASTE MANAGEMENT | Rate | Fee | Amount | Origin |
|--------------------------|-----|------------------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons 100 | | 31.26 Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:
Signature of transporter *[Signature]*
Date received 11/12/13 Time received AM
Truck/Tractor registration 85808
Load size (cubic yards/tons) 31.26

Receiving facility *[Signature]*
Date of shipment 11/12/13 Time of shipment AM
Trailer registration T-45

Load#: 2
Signature of transporter *[Signature]*
Date received 11/12/13 Time received
Truck/Tractor registration 85808
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration T-45

Load#:
Signature of transporter
Date received Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page of



Turnkey Landfill
30-Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902177

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/12/2013 Vehicle# 95 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/12/2013 13:02:38 | scale 1 inbou | PHIL BOISVERT | | Tare | 100000 lb |
| Out | 11/12/2013 13:35:41 | scale 2 outbo | eric metzler | | Net | 37100 lb |
| | | | | | Tons | 63700 lb |
| | | | | | | 31.85 |

Comments



| Product | LD% | Qty | UOM | Rate | Fees | Amount | Origin |
|----------------------|-----|-------|------|------|------|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.85 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902321

Customer Name WLFRENCHCAV-491491NH WL Fre Carrier TEMP ANY CARRIER
Ticket Date 11/13/2013 Vehicle# EMERSON Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|-----------|
| In | 11/13/2013 08:36:58 | scale 1 inbou | phil boisvert | | Tare | 103000 lb |
| Out | 11/13/2013 09:06:52 | scale 2 outbo | eric metzler | | Net | 40640 lb |
| | | | | | Tons | 62360 lb |
| | | | | | | 31.18 |

Comments



WASTE MANAGEMENT

| Product | LD% | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 31.18 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Emerson



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1

Signature of transporter

11 13 13

Date received

2243 AR NH

Truck/Tractor registration

Load size (cubic yards/tons)

AKL

6 45 Am

Time received

31.18

Receiving facility

11 13 13

Date of shipment

1781102

Trailer registration

Turnkey Land fill Phil

AM

Time of shipment

mc

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

Load#: _____

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902418

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier TEMP ANY CARRIER
Ticket Date 11/13/2013 Vehicle# EMERSON Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA PD
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 12:57:20 | scale 1 inbou | phil boisvert | | Tare | 97100 lb |
| Out | 11/13/2013 13:28:35 | scale 2 outbo | eric metzler | | Net | 40340 lb |
| | | | | | Tons | 56760 lb |
| | | | | | | 28.38 |

Comments



| Product | LDX | Qty | UOM | Rate | Fee | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil Met-Tons | 100 | 28.38 | Tons | | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter Jimmy Emerson AXL
Date received 11 13 13 Time received 6 45 AM
Truck/Tractor registration 2243 AR NH

Receiving facility Turnkey Land fill Phil
Date of shipment 11 13 13 Time of shipment AM
Trailer registration 1781102 MC

Load size (cubic yards/tons) 26.38

Load#: 2
Signature of transporter Jimmy Emerson AXL
Date received 11 13 13 Time received 11:10 AM
Truck/Tractor registration 2243 AR NH

Receiving facility Turnkey Land fill Phil
Date of shipment 11 13 13 Time of shipment PM
Trailer registration 1781102 MC

Load size (cubic yards/tons) 26.38

Load#: _____

Signature of transporter _____

Receiving facility _____

Date received _____

Time received _____

Date of shipment _____

Time of shipment _____

Truck/Tractor registration _____

Trailer registration _____

Load size (cubic yards/tons) _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

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Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902311

Customer Name WLFRENCH EXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|---------------|---------------|---------|-------|----------|
| In | 11/13/2013 08:07:09 | scale 1 inbou | phil boisvert | | Tare | 99660 lb |
| Out | 11/13/2013 08:39:27 | scale 2 outbo | eric metzler | | Net | 36480 lb |
| | | | | | Tons | 63180 lb |
| | | | | | | 31.59 |

Comments



| Product | LD% | Qty | Unit | Rate | Amount | Origin |
|--------------------------|-----|-------|------|------|--------|--------|
| 1 Cont Soil Mat-Tons 100 | | 31.59 | Tons | | | MA |

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

WLF 86



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

491491NH

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Signature of transporter

11/21/13

Date received

83873

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/21/13

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

11/21/13

Date received

83873

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/21/13

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444922

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier HEIMLICH TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 64
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PG

Profile
Generator 101450MA (CONTAMINATED SOIL (UNLINED))
NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | | Scale | Operator | Inbound | Gross |
|------|---------------------|----------|----------|---------|-----------|
| In | 12/03/2013 07:38:09 | Inbound | CAMIDI01 | | Tare |
| Out | 12/03/2013 07:56:23 | Outbound | CAMIDI01 | | Net |
| | | | | | Tons |
| | | | | | 101720 lb |
| | | | | | 39540 lb |
| | | | | | 62180 lb |
| | | | | | 31.09 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 31.09 | Tons | | | | MA |

In accordance with Massachusetts law, I certify that the contents of this load
are free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

Total Tax
Total Ticket





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Heimlich

64

Waste Profile #

101450MA

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Heimlich L & C #64

Signature of transporter

12-3-13

Date received

15999

MA

Truck/Tractor registration

Time received

1:38 AM

31.09

Load size (cubic yards/tons)

Receiving facility

12/3/13

Date of shipment

79555

Trailer registration

Time of shipment

Ticket

444922

Load#:

Signature of transporter

12-3-13

Date received

15999

MA

Truck/Tractor registration

Time received

Receiving facility

Date of shipment

79555

Trailer registration

Time of shipment

MA

Load#:

Signature of transporter

12-3-13

Date received

15999

MA

Truck/Tractor registration

Time received

Receiving facility

Date of shipment

79555

Trailer registration

Time of shipment

MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444936

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier HEIMLICH TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 64 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000600
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 09:06:42 | Inbound | CAMIDI01 | | Tare | 106220 lb |
| Out | 12/03/2013 09:29:24 | Outbound | CAMIDI01 | | Net | 39500 lb |
| | | | | | Tons | 66720 lb |
| | | | | | | 33.36 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 33.36 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature Ron M





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Heimlich
64

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Heimlich LHC #69

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Load size (cubic yards/tons)

1:38 AM

Time received

31.09

Receiving facility

12/3/13

Date of shipment

79555 MA

Trailer registration

Time of shipment

Ticket

444922

Load#:

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Load size (cubic yards/tons)

9:04 AM

Time received

33.36

Receiving facility

12/3/13

Date of shipment

79555 MA

Trailer registration

Time of shipment

Ticket

444936

Load#:

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

79555 MA

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444953

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier HEIMLICH TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 64 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 10:42:37 | Inbound | CAMIDI01 | | Tare | 96320 lb |
| Out | 12/03/2013 11:06:56 | Outbound | CAMIDI01 | | Net | 39480 lb |
| | | | | | Tons | 56840 lb |
| | | | | | | 28.42 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RC6-Tons 100 | | 28.42 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Heimlich

64

Waste Profile #

101450MA

Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Heimlich L & C #69

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

1:38 AM

31.09

Receiving facility

12/3/13

Date of shipment

79555 MA

Trailer registration

Time of shipment

Ticket

444922

Load#:

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

9:04 AM

33.36

Receiving facility

12/3/13

Date of shipment

79555 MA

Trailer registration

Time of shipment

Ticket 444936

Load#:

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

10:42

28.42

Receiving facility

12/3/13

Date of shipment

79555 MA

Trailer registration

Time of shipment

Ticket

444953

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LE
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444973

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier HEIMLICH TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 64 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000508
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 12:14:17 | Inbound | CAMIDI01 | | Tare | 105000 lb |
| Out | 12/03/2013 12:31:13 | Outbound | CAMIDI01 | | Net | 39360 lb |
| | | | | | Tons | 65640 lb |
| | | | | | | 32.82 |

Comments

| Product | LDX | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 32.82 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature *Ron M...*





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Heimlich Loc #64

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

10:14 pm

Time received

Load size (cubic yards/tons)

32.82

Receiving facility

Date of shipment

79555 MA

Trailer registration

Time of shipment

TICKET 11/19/13

Load#:

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Time received

Load size (cubic yards/tons)

Receiving facility

Date of shipment

79555 MA

Trailer registration

Time of shipment

Load#:

Signature of transporter

12-3-13

Date received

15999 MA

Truck/Tractor registration

Time received

Load size (cubic yards/tons)

Receiving facility

Date of shipment

79555 MA

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444989

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier HEIMLICH TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 64 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - MED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 13:36:29 | Inbound | CAMIDI01 | | Tare | 96260 lb |
| Out | 12/03/2013 13:53:22 | Outbound | CAMIDI01 | | Net | 39300 lb |
| | | | | | Tons | 56960 lb |
| | | | | | | 28.48 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 28.48 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

Heinrich 64

J. Load Information

Heinrich Lnc #64

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter [Signature]
Date received 12-3-13 Time received 10:41 pm
Truck/Tractor registration 15999 MA
Load size (cubic yards/tons) 32.82

Receiving facility Fitchburg Landfill @
Date of shipment 79555 MA Time of shipment Ticket 444989
Trailer registration 79555 MA

Load#:

Signature of transporter [Signature]
Date received 12-3-13 Time received 136
Truck/Tractor registration 15999 MA
Load size (cubic yards/tons) 28.48

Receiving facility Fitchburg Landfill @
Date of shipment 12/3/13 Time of shipment Ticket
Trailer registration 444989

Load#:

Signature of transporter [Signature]
Date received 12-3-13 Time received
Truck/Tractor registration 15999 MA
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration 79555 MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445006

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier HEIMLICH TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 64 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 14:57:27 | Inbound | CAMIDI01 | | Tare | 100460 lb |
| Out | 12/03/2013 15:26:19 | Outbound | CAMIDI01 | | Net | 39200 lb |
| | | | | | Tons | 61260 lb |
| | | | | | | 30.63 |

Comments

| Product | LDX | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 30.63 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

Heinrich 64

J. Load Information

Heinrich L & C #64

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter Ron Miller

Date received 12-3-13

Time received 10:41 pm

Truck/Tractor registration 15999 MA

Load size (cubic yards/tons) 32.82

Receiving facility Fitchburg Landfill @

Date of shipment

Time of shipment

Trailer registration 79555 MA

Ticket 444943

Load#:

Signature of transporter Ron Miller

Date received 12-3-13

Time received 136

Truck/Tractor registration 15999 MA

Load size (cubic yards/tons) 28.48

Receiving facility Fitchburg Landfill @

Date of shipment 12/3/13

Time of shipment

Trailer registration 79555 MA

Ticket 444989

Load#:

Signature of transporter Ron Miller

Date received 12-3-13

Time received 257

Truck/Tractor registration 15999 MA

Load size (cubic yards/tons) 30.63

Receiving facility Fitchburg Landfill @

Date of shipment 12/3/13

Time of shipment

Trailer registration 79555 MA

Ticket 445006

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444912

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 06:55:47 | Inbound | CAMIDI01 | | Tare | 98880 lb |
| Out | 12/03/2013 07:12:57 | Outbound | CAMIDI01 | | Net | 38420 lb |
| | | | | | Tons | 60460 lb |
| | | | | | | 30.23 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 30.23 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

LL 25

LL 25

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter: [Signature]
Date received: 12/3/13
Time received: 6:55 AM
Truck/Tractor registration: 25000-MA
Load size (cubic yards/tons): 30.23

Receiving facility: Fitchburg Landfill (C)
Date of shipment: 12/3/13
Time of shipment: 7:40 AM
Trailer registration: Ticket 1111912

Load#: 2
Signature of transporter: [Signature]
Date received: 12/3/13
Time received: 7:00 AM
Truck/Tractor registration: 25000-MA
Load size (cubic yards/tons):

Receiving facility: Fitchburg Landfill (C)
Date of shipment: 12/3/13
Time of shipment: 7:40 AM
Trailer registration: Ticket 1111912

Load#: 3
Signature of transporter: [Signature]
Date received: 12/3/13
Time received: 7:00 AM
Truck/Tractor registration: 25000-MA
Load size (cubic yards/tons):

Receiving facility: Fitchburg Landfill (C)
Date of shipment: 12/3/13
Time of shipment: 7:40 AM
Trailer registration: Ticket 1111912

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444930

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 08:23:30 | Inbound | CAMIDI01 | | Tare | 115000 lb |
| Out | 12/03/2013 08:50:20 | Outbound | CAMIDI01 | | Net | 38140 lb |
| | | | | | Tons | 76860 lb |
| | | | | | | 38.43 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 38.43 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

Note:
Make additional
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as necessary.

J. Load Information

Load#: 1 *Rube*
Signature of transporter
12/3/13 6:55 Am
Date received Time received
25000-MA
Truck/Tractor registration
30.03
Load size (cubic yards/tons)

LL 25
Fitchburg Landfill @
Receiving facility
12/3/13
Date of shipment
74-MA Time of shipment
Trailer registration
Ticket 444912

Load#: 2 *Rube*
Signature of transporter
12/3/13 8:24 Am
Date received Time received
25000-MA
Truck/Tractor registration
Load size (cubic yards/tons)

Fitchburg Landfill @
Receiving facility
12/3/13
Date of shipment
74-MA Time of shipment
Trailer registration
Ticket 444930

Load#: 3 *Rube*
Signature of transporter
12/3/13 8:23
Date received Time received
25000-MA
Truck/Tractor registration
Load size (cubic yards/tons) 38.43

Fitchburg Landfill @
Receiving facility
12/3/13
Date of shipment
74-MA Time of shipment
Trailer registration 2

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 1 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444943

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 09:54:32 | Inbound | CAMIDIO1 | | Tare | 99380 lb |
| Out | 12/03/2013 10:14:53 | Outbound | CAMIDIO1 | | Net | 38080 lb |
| | | | | | Tons | 61300 lb |
| | | | | | | 30.65 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 30.65 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

Robe





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

LL 25

LL 25

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1 *Rube*
Signature of transporter
Date received 12/3/13 Time received 6:55 AM
25000-MA
Truck/Tractor registration
30.23
Load size (cubic yards/tons)

Fitchburg Landfill @
Receiving facility
12/3/13
Date of shipment 74-MA Time of shipment
Trailer registration
Ticket 444912

Load#: 2 *Rube*
Signature of transporter
Date received 12/3/13 Time received 8:24 AM
25000-MA
Truck/Tractor registration
38.43
Load size (cubic yards/tons)

Fitchburg Landfill @
Receiving facility
12/3/13
Date of shipment 74-MA Time of shipment
Trailer registration
Ticket 444930

Load#: 3 *Rube*
Signature of transporter
Date received 12/3/13 Time received 9:54 AM
27000-MA
Truck/Tractor registration
30.65
Load size (cubic yards/tons)

Fitchburg Landfill @
Receiving facility
12/3/13
Date of shipment 74-MA Time of shipment
Trailer registration 2
Ticket 444913

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 1 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444960

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 25
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000600
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile
Generator 101450MA (CONTAMINATED SOIL (UNLINED))
NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Time
In 12/03/2013 11:17:42
Out 12/03/2013 11:35:05

Scale
Inbound
Outbound

Operator
CAMIDIO1
CAMIDIO1

Inbound Gross
Tare
Net
Tons

98300 lb
38320 lb
60060 lb
30.03

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 30.03 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
are free of any substances not authorized for acceptance at Fitchburg Landfill.

Operator's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

L+L
25

Fitchburg Landfill @

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 4
Signature of transporter Rube
Date received 12/3/13 Time received 11:20
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 30.03

Receiving facility Fitchburg Landfill
Date of shipment 12/3/13 Time of shipment 11:00
Trailer registration 74-MA 2K44960

Load#: 5
Signature of transporter Rube
Date received 12/3/13 Time received 11:20
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons)

Receiving facility Fitchburg Landfill
Date of shipment 12/3/13 Time of shipment 11:00
Trailer registration 74-MA

Load#: 6
Signature of transporter Rube
Date received 12/3/13 Time received 11:20
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons)

Receiving facility Fitchburg Landfill
Date of shipment 12/3/13 Time of shipment 11:00
Trailer registration 74-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 2 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444978

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------------------|
| In | 12/03/2013 12:39:49 | Inbound | CAMIDIO1 | | Tare | 101120 lb 37960 lb |
| Out | 12/03/2013 12:58:37 | Outbound | CAMIDIO1 | | Net | 63160 lb |
| | | | | | Tons | 31.58 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 31.58 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

L+L
25

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4
Signature of transporter Robe
Date received 12/31/13 Time received 11:20
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 30.03

Receiving facility Fitchburg Landfill
Date of shipment 12/31/13 Time of shipment 11:00
Trailer registration 24-MA
444960

Load#: 5
Signature of transporter Robe
Date received 12/31/13 Time received 12:39
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 31.58

Receiving facility Fitchburg Landfill
Date of shipment 12/31/13 Time of shipment 11:00
Trailer registration 24-MA
444960

Load#: 6
Signature of transporter Robe
Date received 12/31/13 Time received 12:39
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons)

Receiving facility
Date of shipment 12/31/13 Time of shipment
Trailer registration 24-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 2 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444998

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 14:05:30 | Inbound | CAMIDIO1 | | Tare | 100260 lb |
| Out | 12/03/2013 14:23:05 | Outbound | CAMIDIO1 | | Net | 37900 lb |
| | | | | | Tons | 62360 lb |
| | | | | | | 31.18 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 31.18 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

Note:
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as necessary.

J. Load Information

Load#:

4

Signature of transporter

12/3/13

Date received

25000-MA

Time received

11:20

Truck/Tractor registration

30 Q3

Load size (cubic yards/tons)

Receiving facility

12/3/13

Date of shipment

74-MA

Time of shipment

Ticket

Trailer registration

2444960

Load#:

5

Signature of transporter

12/3/13

Date received

25000-MA

Time received

12:39

Truck/Tractor registration

31.58

Load size (cubic yards/tons)

Receiving facility

12/3/13

Date of shipment

74-MA

Time of shipment

Ticket

Trailer registration

2444978

Load#:

6

Signature of transporter

12/3/13

Date received

25000-MA

Time received

2:05

Truck/Tractor registration

31.18

Load size (cubic yards/tons)

Receiving facility

12/3/13

Date of shipment

74-MA

Time of shipment

Ticket 4444978

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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of

2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444914

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 52 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 07:10:32 | Inbound | CAMIDI01 | | Tare | 97660 lb |
| Out | 12/03/2013 07:34:19 | Outbound | CAMIDI01 | | Net | 37080 lb |
| | | | | | Tons | 60580 lb |
| | | | | | | 30.29 |

Comments

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 30.29 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

hth#52

Waste Profile #

101450MA

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: ①

Signature of transporter

12/3/13

Date received

52000M

Truck/Tractor registration

11:10 AM

Time received

30.29

Load size (cubic yards/tons)

Receiving facility

12-3-13

Date of shipment

23M

Trailer registration

Time of shipment

Ticket 424914

Load#: ②

Signature of transporter

Date received

52000M

Truck/Tractor registration

Time received

Receiving facility

12-3-13

Date of shipment

23M

Trailer registration

Time of shipment

Load size (cubic yards/tons)

Load#: ③

Signature of transporter

Date received

52000M

Truck/Tractor registration

Time received

Receiving facility

12-3-13

Date of shipment

23M

Trailer registration

Time of shipment

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444934

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 52 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 08:49:54 | Inbound | CAMIDIO1 | | Tare | 100300 lb |
| Out | 12/03/2013 09:09:22 | Outbound | CAMIDIO1 | | Net | 37080 lb |
| | | | | | Tons | 63220 lb |
| | | | | | | 31.61 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 31.61 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

hth 52

Waste Profile #
101450MA
Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: ①

Signature of transporter

10/3/13

Date received

52000M

Truck/Tractor registration

7:10 AM

Time received

30.29

Load size (cubic yards/tons)

Fitchburg Landfill @

Receiving facility

12-3-13

Date of shipment

23M

Trailer registration

Time of shipment

Ticket 444914

Load#: ②

Signature of transporter

10/3/13

Date received

52000M

Truck/Tractor registration

8:49 AM

Time received

31.61

Load size (cubic yards/tons)

Fitchburg Landfill @

Receiving facility

12-3-13

Date of shipment

23M

Trailer registration

Time of shipment

Ticket 444934

Load#: ③

Signature of transporter

Date received

52000M

Truck/Tractor registration

Time received

Receiving facility

12-3-13

Date of shipment

23M

Trailer registration

Time of shipment

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444946

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 52 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|----------|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 10:21:39 | Inbound | CAMIDI01 | | Tare | 106960 lb |
| Out | 12/03/2013 10:43:04 | Outbound | CAMIDI01 | | Net | 37020 lb |
| | | | | | Tons | 69940 lb |
| Comments | | | | | | 34.97 |

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 34.97 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

hth 52

Waste Profile #
101450MA
Tracking Number

Note:
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copies of this page
as necessary.

J. Load Information

Load#: ①
Signature of transporter: [Signature]
Date received: 12/3/13
Time received: 7:10 AM
Truck/Tractor registration: 52000M
Load size (cubic yards/tons): 30.29

Receiving facility: Fitchburg Landfill @
Date of shipment: 12-3-13
Time of shipment: 23M
Trailer registration: Ticket 444914

Load#: ②
Signature of transporter: [Signature]
Date received: 12/3/13
Time received: 8:49 AM
Truck/Tractor registration: 52000M
Load size (cubic yards/tons): 31.61

Receiving facility: Fitchburg Landfill @
Date of shipment: 12-3-13
Time of shipment: 23M
Trailer registration: Ticket 444934

Load#: ③
Signature of transporter: [Signature]
Date received: 12/3/13
Time received: 10:23
Truck/Tractor registration: 52000M
Load size (cubic yards/tons): 34.97

Receiving facility: Fitchburg Landfill @
Date of shipment: 12-3-13
Time of shipment: 23M
Trailer registration: Ticket 444946

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444969

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 52 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 11:52:21 | Inbound | CAMIDI01 | | Tare | 97860 lb |
| Out | 12/03/2013 12:13:37 | Outbound | CAMIDI01 | | Net | 36980 lb |
| | | | | | Tons | 60880 lb |
| | | | | | | 30.44 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 30.44 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

LHW 52

Waste Profile #

101450MA

Tracking Number

J. Load Information

Note:
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as necessary.

Load#: ④

Signature of transporter

12/3/13

Date received

1150

Time received

5200MA

Truck/Tractor registration

Load size (cubic yards/tons)

30.44

Receiving facility

12-3-13

Date of shipment

Time of shipment

23MA

Trailer registration

Ticket 1/4/1968

Load#: ⑤

Signature of transporter

5200MA

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

12-3-13

Date of shipment

Time of shipment

23MA

Trailer registration

Load#: ⑥

Signature of transporter

5200MA

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

12-3-13

Date of shipment

Time of shipment

23MA

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



ROI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444983

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 52 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 13:21:09 | Inbound | CAMIDI01 | | Tare | 36960 lb |
| Out | 12/03/2013 13:42:01 | Outbound | CAMIDI01 | | Net | 59720 lb |
| | | | | | Tons | 29.86 |

Comments

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 29.86 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Lth #52

Waste Profile #
101450MA
Tracking Number

Note:
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J. Load Information

Load#: ④

Signature of transporter
Stho

Date received
12/3/13

Truck/Tractor registration
52000MA

Time received
11:50

Load size (cubic yards/tons)
30.44

Receiving facility
Fitchburg Landfill @

Date of shipment
12-3-13

Trailer registration
23MA

Time of shipment

Ticket 1/4/1968

Load#: ⑤

Signature of transporter
Stho

Date received
12/3/13

Truck/Tractor registration
52000MA

Time received
1:51

Load size (cubic yards/tons)
2986

Receiving facility
Fitchburg Landfill @

Date of shipment
12-3-13

Trailer registration
23MA

Time of shipment

Ticket 1/4/1983

Load#: ⑥

Signature of transporter
Stho

Date received

Truck/Tractor registration
52000MA

Time received

Load size (cubic yards/tons)

Receiving facility

Date of shipment
12-3-13

Trailer registration
23MA

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445005

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/03/2013 Vehicle# 52 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 00000008
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 14:49:53 | Inbound | CAMIDIO1 | | Tare | 90500 lb |
| Out | 12/03/2013 15:23:40 | Outbound | CAMIDIO1 | | Net | 36820 lb |
| | | | | | Tons | 53760 lb |
| | | | | | | 26.88 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 26.88 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

LHW#52

Waste Profile #

101450MA

Tracking Number

Note:
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J. Load Information

Load#: ④

Signature of transporter
S.H.O.

Date received
12/3/13

Truck/Tractor registration
52000MA

Time received
1150

Load size (cubic yards/tons)
30.44

Fitchburg Landfill @
Receiving facility

Date of shipment
12-3-13

Trailer registration
23MA

Time of shipment

Ticket 4449608

Load#: ⑤

Signature of transporter
S.H.O.

Date received
12/3/13

Truck/Tractor registration
52000MA

Time received
1:51

Load size (cubic yards/tons)
2986

Fitchburg Landfill @
Receiving facility

Date of shipment
12-3-13

Trailer registration
23MA

Time of shipment

Ticket 444983

Load#: ⑥

Signature of transporter
S.H.O.

Date received
12/3/13

Truck/Tractor registration
52000MA

Time received
2:49

Load size (cubic yards/tons)
26.88

Fitchburg Landfill @
Receiving facility

Date of shipment
12-3-13

Trailer registration
23MA

Time of shipment

Ticket 445005

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444919

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/03/2013 Vehicle# 91 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PD
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 07:22:49 | Inbound | CAMIDI01 | | Tare | 99740 lb |
| Out | 12/03/2013 07:42:00 | Outbound | CAMIDI01 | | Net | 37360 lb |
| | | | | | Tons | 62380 lb |
| | | | | | | 31.19 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 31.19 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

French 91

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter Muhl Rgy
Date received 12/31/13 Time received 7:22 AM
Truck/Tractor registration MA 85162
Load size (cubic yards/tons) 31.19

Receiving facility Fitchburg Landfill @
Date of shipment 12/31/13 Time of shipment Ticket
Trailer registration 444919

Load#: 2
Signature of transporter Muhl Rgy
Date received 12/31/13 Time received
Truck/Tractor registration MA 85162
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

Load#: 3
Signature of transporter Muhl Rgy
Date received 12/31/13 Time received
Truck/Tractor registration MA 85162
Load size (cubic yards/tons)

Receiving facility
Date of shipment Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444935

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/03/2013 Vehicle# 91 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 08:58:12 | Inbound | CAMIDIO1 | | Tare | 100220 lb |
| Out | 12/03/2013 09:35:05 | Outbound | CAMIDIO1 | | Net | 37320 lb |
| | | | | | Tons | 62900 lb |
| | | | | | | 31.45 |

Comments

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 31.45 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

French #91

Waste Profile #
101450MA
Tracking Number

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter: *M. R. R.*
Date received: 12/3/13
Time received: 7:22 AM
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons): 31.19

Receiving facility: Fitchburg Landfill @
Date of shipment: 10/3/13
Time of shipment: Ticket
Trailer registration: 444919

Load#: 2
Signature of transporter: *M. R. R.*
Date received: 12/3/13
Time received: 8:58
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons): 31.45

Receiving facility: Fitchburg Landfill @
Date of shipment: 10/3/13
Time of shipment: Ticket
Trailer registration: 444935

Load#: 3
Signature of transporter: *M. R. R.*
Date received: 12/3/13
Time received: 8:51
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

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RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444954

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/03/2013 Vehicle# 91 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PD
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 10:45:13 | Inbound | CAMIDID1 | | Tare | 102400 lb |
| Out | 12/03/2013 11:09:22 | Outbound | CAMIDID1 | | Net | 37260 lb |
| | | | | | Tons | 65140 lb |
| | | | | | | 32.57 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 32.57 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature M. P.





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

French 91

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Time received

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444976

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/03/2013 Vehicle# 91 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - MED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 12:21:41 | Inbound | CAMIDI01 | | | 92180 lb |
| Out | 12/03/2013 12:39:56 | Outbound | CAMIDI01 | | Tare | 37240 lb |
| | | | | | Net | 54940 lb |
| | | | | | Tons | 27.47 |

Comments

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 27.47 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature M. J. [Signature]



France 91



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4
Muhl Ryz
Signature of transporter
12/3/13
Date received
MA 85162
Truck/Tractor registration
2M4M
Load size (cubic yards/tons)

Fitchburg Landfill @
Receiving facility
12/3/13
Date of shipment
Time of shipment
Ticket 444976
Trailer registration

Load#: 5
Muhl Ryz
Signature of transporter
12/3/13
Date received
MA 85162
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment
Time of shipment
Trailer registration

Load#: 6
Muhl Ryz
Signature of transporter
12/3/13
Date received
MA 85162
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment
Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

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RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444992

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/03/2013 Vehicle# 91 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/03/2013 13:44:54 | Inbound | CAMIDI01 | | Tare | 98180 lb |
| Out | 12/03/2013 14:02:34 | Outbound | CAMIDI01 | | Net | 37160 lb |
| | | | | | Tons | 61020 lb |
| | | | | | | 30.51 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 30.51 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature M. RZ





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

France 91

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

4
Muhle Pzy
Signature of transporter
12/3/13
Date received
MA 85162
Truck/Tractor registration
Load size (cubic yards/tons) 2444

Receiving facility

12/3/13
Date of shipment

Time of shipment

Ticket 444976

Trailer registration

Load#:

5
Muhle Pzy
Signature of transporter
12/3/13
Date received
MA 85162
Truck/Tractor registration
Load size (cubic yards/tons) 30.51

Receiving facility

12/3/13
Date of shipment

Time of shipment

N/A

Trailer registration

Load#:

6
Muhle Pzy
Signature of transporter
12/3/13
Date received
MA 85162
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445008

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/03/2013 Vehicle# 91 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/03/2013 15:05:40 | Inbound | CAMIDIO1 | | Tare | 103360 lb |
| Out | 12/03/2013 15:28:49 | Outbound | CAMIDIO1 | | Net | 37060 lb |
| | | | | | Tons | 66300 lb |
| | | | | | | 33.15 |

Comments

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 33.15 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

France 91

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4
Signature of transporter: *Mikel Ryz*
Date received: 12/3/13
Time received: 12:22
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons): 24.4

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment: Ticket 444976
Trailer registration:

Load#: 5
Signature of transporter: *Mikel Ryz*
Date received: 12/3/13
Time received: 1:44
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons): 30.51

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment: Ticket 444992
Trailer registration: N/A

Load#: 6
Signature of transporter: *Mikel Ryz*
Date received: 12/3/13
Time received: 3:07
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons): 33.15

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment: Ticket 445008
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445019

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 07:12:23 | Inbound | CAMIDIO1 | | Tare | 100700 lb |
| Out | 12/04/2013 07:40:53 | Outbound | CAMIDIO1 | | Net | 35920 lb |
| | | | | | Tons | 64780 lb |
| | | | | | | 32.39 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 32.39 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

French 67

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Fitchburg Landfill @

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminstery MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445032

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 08:54:05 | Inbound | CAMIDI01 | | Tare | 101220 lb |
| Out | 12/04/2013 09:12:26 | Outbound | CAMIDI01 | | Net | 35860 lb |
| | | | | | Tons | 65360 lb |
| | | | | | | 32.68 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 32.68 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

French 67

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445040

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|----------|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 10:28:56 | Inbound | CAMIDIO1 | | Tare | 98560 lb |
| Out | 12/04/2013 10:47:09 | Outbound | CAMIDIO1 | | Net | 35820 lb |
| | | | | | Tons | 62740 lb |
| Comments | | | | | | 31.37 |

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 31.37 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

French 67

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter: [Signature]
Date received: 12/4/13 Time received: 4:13
Truck/Tractor registration: 52831 65/T57
Load size (cubic yards/tons): 32.39

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13 Time of shipment: Ticket 445019
Trailer registration:

Load#: 2
Signature of transporter: [Signature]
Date received: 12/4/13 Time received: 8:54
Truck/Tractor registration: 52831 65/T57
Load size (cubic yards/tons): 32.68

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13 Time of shipment: Ticket 445032
Trailer registration:

Load#: 3
Signature of transporter: [Signature]
Date received: 12/4/13 Time received: 10:09
Truck/Tractor registration: 52831 65/T57
Load size (cubic yards/tons): 31.34

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13 Time of shipment: Ticket 445048
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445060

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 12:01:05 | Inbound | CAMIDI01 | | Tare | 102840 lb |
| Out | 12/04/2013 12:15:38 | Outbound | CAMIDI01 | | Net | 35740 lb |
| | | | | | Tons | 67100 lb |
| | | | | | | 33.55 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 33.55 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

Fitch 6M

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4
Signature of transporter: [Signature]
Date received: 12/4/13
Time received: 12:01
Truck/Tractor registration: 33.55
Load size (cubic yards/tons): 33.55

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment: Ticket # 145060
Trailer registration:

Load#: 5
Signature of transporter: [Signature]
Date received: 12/4/13
Time received: 6:00/TSJ
Truck/Tractor registration:
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

Load#: 6
Signature of transporter: [Signature]
Date received: 12/4/13
Time received: 6:00/TSJ
Truck/Tractor registration:
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445074

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 67 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - MED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 13:46:45 | Inbound | CAMIDI01 | | Tare | 103140 lb |
| Out | 12/04/2013 14:04:40 | Outbound | CAMIDI01 | | Net | 35700 lb |
| | | | | | Tons | 67440 lb |
| | | | | | | 33.72 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RC6-Tons | 100 | 33.72 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

Fitch 6M

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4
Signature of transporter: [Signature]
Date received: 12/4/13
Time received: 12:01
Truck/Tractor registration: 33.55
Load size (cubic yards/tons): 33.55

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment: Ticket #45060
Trailer registration:

Load#: 5
Signature of transporter: [Signature]
Date received: 12/4/13
Time received: 148
Truck/Tractor registration: 3372
Load size (cubic yards/tons): 3372

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment: Ticket #45074
Trailer registration:

Load#: 6
Signature of transporter: [Signature]
Date received: 12/4/13
Time received: 60/75
Truck/Tractor registration:
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445014

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/04/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PD
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|----------|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 06:53:57 | Inbound | CAMIDI01 | | Tare | 106000 lb |
| Out | 12/04/2013 07:10:52 | Outbound | CAMIDI01 | | Net | 38640 lb |
| | | | | | Tons | 67360 lb |
| Comments | | | | | | 33.68 |

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 33.68 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page

of



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445024

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/04/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 08:13:54 | Inbound | CAMIDI01 | | Tare | 38580 lb |
| Out | 12/04/2013 08:31:43 | Outbound | CAMIDI01 | | Net | 59480 lb |
| | | | | | Tons | 29.74 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RC6-Tons 100 | | 29.74 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note:
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copies of this page
as necessary.

Load#: 1
Signature of transporter Rbc
Date received 12/4/13 Time received 653
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 3368

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment Ticket 445014
Trailer registration 74-MA

Load#: 2
Signature of transporter Rbc
Date received 12/4/13 Time received 814
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 29.44

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment Ticket 445024
Trailer registration 74-MA

Load#: 3
Signature of transporter Rbc
Date received 12/4/13 Time received 25000-MA
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons)

Receiving facility
Date of shipment 12/4/13 Time of shipment
Trailer registration 74-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 1 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445040

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/04/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 09:35:05 | Inbound | CAMIDIO1 | | Tare | 103960 lb |
| Out | 12/04/2013 09:52:20 | Outbound | CAMIDIO1 | | Net | 38520 lb |
| | | | | | Tons | 65440 lb |
| | | | | | | 32.72 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 32.72 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

Note:
Make additional
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J. Load Information

Load#:

Signature of transporter

12/4/13

Date received

25000 - MA

Truck/Tractor registration

Load size (cubic yards/tons)

653

Time received

33.68

Receiving facility

12/4/13

Date of shipment

74-MA

Trailer registration

Time of shipment

Ticket 445014

Load#:

Signature of transporter

12/4/13

Date received

25000 - MA

Truck/Tractor registration

Load size (cubic yards/tons)

8.14

Time received

29.74

Receiving facility

12/4/13

Date of shipment

74-MA

Trailer registration

Time of shipment

Ticket 445024

Load#:

Signature of transporter

12/4/13

Date received

25000 - MA

Truck/Tractor registration

Load size (cubic yards/tons)

935

Time received

32.72

Receiving facility

12/4/13

Date of shipment

74-MA

Trailer registration

Time of shipment

Ticket 445040

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

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of

2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445051

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/04/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 10:59:53 | Inbound | CAMIDI01 | | Tare | 99640 lb |
| Out | 12/04/2013 11:18:04 | Outbound | CAMIDI01 | | Net | 38700 lb |
| | | | | | Tons | 60940 lb |
| | | | | | | 30.47 |

Comments

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCS-Tons 100 | | 30.47 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

Note:
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as necessary.

J. Load Information

Load#: 4
Signature of transporter Robe
Date received 12/4/13 Time received 11:00
25000 - MA
Truck/Tractor registration 304M
Load size (cubic yards/tons) 30.4M

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment Ticket 445051
Trailer registration 74-MA

Load#: 5
Signature of transporter Robe
Date received 25000 - MA Time received 11:00
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment 12/4/13 Time of shipment
Trailer registration 74-MA

Load#: 6
Signature of transporter Robe
Date received 25000 - MA Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment 12/4/13 Time of shipment
Trailer registration 74-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 2 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Reprint
Ticket# 445063

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/04/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 12:24:04 | Inbound | CAMIDI01 | | Tare | 101480 lb |
| Out | 12/04/2013 12:41:45 | Outbound | CAMIDI01 | | Net | 38440 lb |
| | | | | | Tons | 63040 lb |
| | | | | | | 31.52 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 31.52 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

LTL US

Note:
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as necessary.

J. Load Information

Load#: 4
Signature of transporter Rube
Date received 10/4/13 Time received 11:00
25000 - MA
Truck/Tractor registration 30.47
Load size (cubic yards/tons) 30.47

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment Ticket 445051
Trailer registration 74-MA

Load#: 5
Signature of transporter Rube
Date received 10/4/13 Time received 10:24
25000 - MA
Truck/Tractor registration 31.52
Load size (cubic yards/tons) 31.52

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment Ticket 445063
Trailer registration 74-MA

Load#: 6
Signature of transporter Rube
Date received 25000 - MA Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment 12/4/13 Time of shipment
Trailer registration 74-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 2 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445076

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier L and L TRACTOR TRAILER
Ticket Date 12/04/2013 Vehicle# 25 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|----------|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 13:56:49 | Inbound | CAMIDIO1 | | | 103640 lb |
| Out | 12/04/2013 14:15:32 | Outbound | CAMIDIO1 | | Tare | 38380 lb |
| | | | | | Net | 65260 lb |
| Comments | | | | | Tons | 32.63 |

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 32.63 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature



L+L U



**Massachusetts Department of Environmental Protection
Bureau of Waste Prevention**

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

Note:
Make additional
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as necessary.

J. Load Information

Load#: 4
Signature of transporter Rube
Date received 12/4/13 Time received 11:00
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 30.47

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment
Trailer registration 74-MA Ticket 445051

Load#: 5
Signature of transporter Rube
Date received 12/4/13 Time received 10:24
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 31.52

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment
Trailer registration 74-MA Ticket 445063

Load#: 6
Signature of transporter Rube
Date received 12/4/13 Time received 156
Truck/Tractor registration 25000-MA
Load size (cubic yards/tons) 32.63

Receiving facility Fitchburg Landfill @
Date of shipment 12/4/13 Time of shipment
Trailer registration 74-MA Ticket 445076

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 2 of 2



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA 01473
PH: (978) 674-0037

Original
Ticket# 445021

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 59 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 07:37:49 | Inbound | CAMIDID1 | | Tare | 97140 lb |
| Out | 12/04/2013 08:00:32 | Outbound | CAMIDID1 | | Net | 40360 lb |
| | | | | | Tons | 56780 lb |
| | | | | | | 28.39 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RC6-Tons | 100 | 28.39 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature



France 59



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

WLF #59

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter [Signature]

Date received 12/4/13

Time received 7:37

Truck/Tractor registration 54760 MA

Load size (cubic yards/tons) 28.39

Receiving facility Fitchburg Landfill @

Date of shipment 12/4/13

Time of shipment

TICL# 4/15001

Trailer registration

Load#: 2

Signature of transporter [Signature]

Date received

Time received

Truck/Tractor registration 54760 MA

Load size (cubic yards/tons)

Receiving facility

Date of shipment 12/4/13

Time of shipment

Trailer registration

Load#: 3

Signature of transporter [Signature]

Date received

Time received

Truck/Tractor registration 54760 MA

Load size (cubic yards/tons)

Receiving facility

Date of shipment 12/4/13

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445016

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 88 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 07:03:48 | Inbound | CAMIDI01 | | | 98160 lb |
| Out | 12/04/2013 07:36:53 | Outbound | CAMIDI01 | | Tare | 37020 lb |
| | | | | | Net | 61140 lb |
| | | | | | Tons | 30.57 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RC0-Tons 100 | | 30.57 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

French 88

J. Load Information

Note:
Make additional
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as necessary.

Load#: 1

Signature of transporter

12-4-13

Date received

Time received

85779

Truck/Tractor registration

Load size (cubic yards/tons)

30.57

Receiving facility

10/4/13

Date of shipment

75039

Trailer registration

Time of shipment

Ticket 445016

Load#: 2

Signature of transporter

12-4-13

Date received

Time received

85779

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

75039

Trailer registration

Time of shipment

Load#: 3

Signature of transporter

12-4-13

Date received

Time received

85779

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

75039

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445030

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 88 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000508
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 08:45:26 | Inbound | CAMIDI01 | | Tare | 99700 lb |
| Out | 12/04/2013 09:10:47 | Outbound | CAMIDI01 | | Net | 36950 lb |
| | | | | | Tons | 62740 lb |
| | | | | | | 31.37 |

Comments

| Product | LDX | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons 100 | | 31.37 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

French 88

Note:
Make additional
copies of this page
as necessary.

J. Load Information

Load#: 1
Signature of transporter [Signature]
Date received 12-4-13 Time received 11:01
Truck/Tractor registration 85779
Load size (cubic yards/tons) 30.57

Receiving facility Fitchburg Landfill @
Date of shipment 10/4/13 Time of shipment
Trailer registration 75039 Ticket 445016

Load#: 2
Signature of transporter [Signature]
Date received 12-4-13 Time received 8:45
Truck/Tractor registration 85779
Load size (cubic yards/tons) 31.37

Receiving facility Fitchburg Landfill @
Date of shipment 10/4/13 Time of shipment
Trailer registration 75039 Ticket 445030

Load#: 3
Signature of transporter [Signature]
Date received 12-4-13 Time received
Truck/Tractor registration 85779
Load size (cubic yards/tons)

Receiving facility
Date of shipment 75039 Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445045

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 88 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 10:16:11 | Inbound | CAMIDIO1 | | | 98960 lb |
| Out | 12/04/2013 10:37:05 | Outbound | CAMIDIO1 | | Tare | 36920 lb |
| | | | | | Net | 62040 lb |
| | | | | | Tons | 31.02 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons | 100 | 31.02 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

French 88

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 1
Signature of transporter [Signature]
Date received 12-4-13 Time received 11:04
Truck/Tractor registration 85779
Load size (cubic yards/tons) 30.57

Fitchburg Landfill @
Receiving facility 10/4/13
Date of shipment 75039 Time of shipment Ticket 445016
Trailer registration

Load#: 2
Signature of transporter [Signature]
Date received 12-4-13 Time received 8:15
Truck/Tractor registration 85779
Load size (cubic yards/tons) 31.37

Fitchburg Landfill @
Receiving facility 10/4/13
Date of shipment 75039 Time of shipment Ticket 445030
Trailer registration

Load#: 3
Signature of transporter [Signature]
Date received 12-4-13 Time received 10:16
Truck/Tractor registration 85779
Load size (cubic yards/tons) 31.02

Fitchburg Landfill @
Receiving facility 10/4/13
Date of shipment 75039 Time of shipment Ticket 445045
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445057

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 88 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile
Generator 101450MA (CONTAMINATED SOIL (UNLINED))
NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| Time | Scale | Operator | Inbound | Gross | |
|-------------------------|----------|----------|---------|-------|-----------|
| In 12/04/2013 11:49:28 | Inbound | CAMIDI01 | | | 105400 lb |
| Dut 12/04/2013 12:11:01 | Outbound | CAMIDI01 | | Tare | 36880 lb |
| | | | | Net | 68520 lb |
| | | | | Tons | 34.26 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RC6-Tons 100 | | 34.26 | Tons | | | | MA |

Total Tax
Total Ticket

Under Massachusetts law, I certify that the contents of this load
are not authorized for acceptance at Fitchburg Landfill.



FRANC 88



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4

Signature of transporter

12-4-13

Date received

85779

Truck/Tractor registration

11:49

Time received

Load size (cubic yards/tons)

34.26

Receiving facility

12/4/13

Date of shipment

75039

Trailer registration

Time of shipment

Ticket 445057

Load#: 5

Signature of transporter

12-4-13

Date received

85779

Truck/Tractor registration

Time received

Receiving facility

Date of shipment

75039

Trailer registration

Time of shipment

Load#: 6

Signature of transporter

12-4-13

Date received

85779

Truck/Tractor registration

Time received

Receiving facility

Date of shipment

75039

Trailer registration

Time of shipment

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445068

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 88 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 00000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|-----------|
| In | 12/04/2013 13:17:27 | Inbound | CAMIDI01 | | Tare | 100240 lb |
| Out | 12/04/2013 13:38:03 | Outbound | CAMIDI01 | | Net | 36820 lb |
| | | | | | Tons | 63420 lb |
| | | | | | | 31.71 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|----------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCG-Tons | 100 | 31.71 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature



FRANCE 88



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4

Signature of transporter

12-4-13

Date received

85729

Truck/Tractor registration

Load size (cubic yards/tons)

11:49

Time received

34.26

Receiving facility

12/4/13

Date of shipment

75039

Trailer registration

Time of shipment

Ticket 445057

Load#: 5

Signature of transporter

12-4-13

Date received

85729

Truck/Tractor registration

Load size (cubic yards/tons)

1:14

Time received

31.11

Receiving facility

12/4/13

Date of shipment

75039

Trailer registration

Time of shipment

Ticket 445068

Load#: 6

Signature of transporter

12-4-13

Date received

85729

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

75039

Trailer registration

Time of shipment

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445082

Customer Name WLFRENCH-101450MA WL FRENCH E Carrier FRENCH TRACTOR TRAILERS
Ticket Date 12/04/2013 Vehicle# 88 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000608
State Waste Code Gen EPA ID NOT REQUIRED
Manifest NA
Destination
PD
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

| | Time | Scale | Operator | Inbound | Gross | |
|-----|---------------------|----------|----------|---------|-------|----------|
| In | 12/04/2013 14:50:00 | Inbound | CAMIDI01 | | Tare | 36740 lb |
| Out | 12/04/2013 15:13:42 | Outbound | CAMIDI01 | | Net | 60340 lb |
| | | | | | Tons | 30.17 |

Comments

| Product | LD% | Qty | UOM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 30.17 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature



FRANCE 88



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #

101450MA

Tracking Number

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#: 4

Signature of transporter

12-4-13

Date received

85779

Truck/Tractor registration

Load size (cubic yards/tons)

11:49

Time received

34.26

Receiving facility

12/4/13

Date of shipment

75039

Trailer registration

Time of shipment

Ticket # 445057

Load#: 5

Signature of transporter

12-4-13

Date received

85779

Truck/Tractor registration

Load size (cubic yards/tons)

1:14

Time received

31.11

Receiving facility

12/4/13

Date of shipment

75039

Trailer registration

Time of shipment

Ticket # 445068

Load#: 6

Signature of transporter

12-4-13

Date received

85779

Truck/Tractor registration

Load size (cubic yards/tons)

3:13

Time received

30.14

Receiving facility

12/4/13

Date of shipment

75039

Trailer registration

Time of shipment

Ticket # 445082

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____



RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445094

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/05/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile
Generator

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 67
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED
Volume

101450MA (CONTAMINATED SOIL (UNLINED))
NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

In 12/05/2013 07:00:58
Out 12/05/2013 07:22:58

Scale
Inbound
Outbound

Operator
CAMIDIO1
CAMIDIO1

Inbound
Gross
Tare
Net
Tons

98660 lb
35980 lb
62680 lb
31.34

Comments

| Product | LD% | Qty | UDM | Rate | Tax | Amount | Origin |
|--------------------------|-----|-------|------|------|-----|--------|--------|
| 1 Cont Soil RCB-Tons 100 | | 31.34 | Tons | | | | MA |

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load
are of any substances not authorized for acceptance at Fitchburg Landfill.

Operator's Signature



Model 4 #10-450 MHA LF

France
67



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

~~Tracking Number~~

J. Load Information

Note:
Make additional
copies of this page
as necessary.

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WLF 205

APPENDIX I

Daily Quality Control Reports

(See CD Included Separately)

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 001
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 09 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: cloudy, rain

Precipitation: yes Temp: 70 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|--------------------|-------|-----------|------------------------------|
| Bill Borawiec | 8.5 | Sovereign | Site Supervisor |
| Laura Simkins | 3.0 | Sovereign | Wetland Specialist |
| Sam Landry | 3.0 | Sovereign | Environmental Scientist |
| John Curran | 8.5 | RCTD | Site Supervisor |
| Robert Ponte | 8.5 | RCTD | Laborer |
| Cesar Franco | 8.5 | RCTD | Operator |
| Yuryushov Yevgeniy | 8.5 | RCTD | Laborer |
| Zachary Reed | 8.5 | RCTD | Laborer |
| John Hill | 8.5 | RCTD | Mechanic |
| Jim Heneburg | 3.0 | RCTD | Site Supervisor |
| Yevgeniy Lavrusko | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 6.0 | 2.0 | |
| CAT 307C Excavator | ↓ | " " | 4.0 | 4.0 | |
| Global Pumps | ↓ | | | | |
| Boat/Motor | ↓ | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work performed today:

Initial MOB to site, site equipment was delivered to the site along with office trailer and several loads of stone/sand. The access road to the dam was improved and the 2 pumps were placed down. The access ramp to pond inlet was improved with stone/sand. Rain event surface water sampling was conducted.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

Gravel - 3 tri-axel loads
Rip-rap - 1 load
fine SAND - 1 load

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Morning tailgate meeting conducted, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *8/9/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 12 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: None Temp: 60 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 6.0 | 3.0 | |
| CAT 307C Excavator | ↓ | ↓ | 6.0 | 3.0 | |
| G-1000 pumps | ↓ | ↓ | | | |
| Boat/Motor | ↓ | ↓ | | | |
| TL230 skid steer | 8/12/13 ↓ | ↓ | 4.0 | 5.0 | |
| | | | | | |
| | | | | | |

3. Work performed today:

Work was performed on the pump intakes adjacent to the dam. Pump-1 and Pump-2 inlets were deployed. Pump-2 (nearest ~~away~~ ^{closest} to dam) intake consists of one (1) 40' two (2) 20' hard pipes and one (1) 10' section of flex pipe. Pump-1 intake set as one (1) 40' section w/intake screen and one (1) 20' section (this intake is not final configured @ EOB). Dam access road was repaired using skidsteer.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Offsite surveillance activities, including action taken:


None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Morning tailgate safety meeting was conducted, review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *8/12/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Daily Report No.: 003
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 13 AUG 13

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly sunny

Precipitation: ~~none~~ Temp: 65 Min. 70 Max. 70
it rain @ times

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 4.0 | 5.0 | |
| CAT 307C Excavator | ↓ | ↓ | 4.0 | 5.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Pont/Motor | ↓ | ↓ | | | |
| TL 230 skid steer | 8/10/13 ↓ | ↓ | 4.0 | 5.0 | |
| | | | | | |
| | | | | | |

3. Work performed today:

Pump-1 intake was constructed and consists of one (1) 40', two (2) 20', and one (1) 10' flex sections. Two (2) 6" dia cast concrete structures were placed downstream of dam and filled w/rip-rap (splash pad). The pump intakes were fitted w/buoys to float and were set on top of tote-cage to elevate their locations w/respect to pond bottom. Sand bags (standard and super-sack sized) were made-up and staged.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Completed morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *8/13/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Daily Report No.: 009
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 14A06-13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 60 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 6.0 | 2.5 | |
| CAT 307C Excavator | ↓ | ↓ | 4.0 | 4.5 | |
| Global Pumps | | | | | |
| Boat/Motor | ↓ | ↓ | | | |
| TL 230 Skidsteer | 8/12/13 ↓ | ↓ | 2.0 | 6.5 | |
| | | | | | |
| | | | | | |

3. Work performed today:

Installed sandbag dam in PSP inlet, kept constant water level
① top of rock of the inlet structure. Began Pond dewatering
② 11:45 using both pumps P-1 + P-2 running @ ~1500 gpm each.
Pumps were left on @ departure.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively).

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Offsite surveillance activities, including action taken:

None

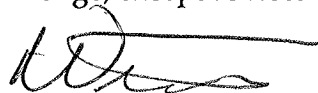
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning failsafe safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Ayer DPW on-site today - Mark Wetzel and Doug Jas person. They suggested contacting police to let them know of equipment presence.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



8/14/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 005
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 15 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 55 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|------------|------------------------------|
| Bill Borowiec | 9.75 | Sovereign | Site Supervisor |
| Laura Sinkins | 6.5 | Sovereign | Wetland specialist |
| Erin Foley | 6.5 | Sovereign | Env. Sci. |
| Rachel Leary | 6.75 | Sovereign | PM |
| Andrew Thompson | 6.5 | Normandeau | Biologist |
| Jim Henebury | | RC+D | Site Supervisor |
| John Hill | 1.75 | RC+D | Mechanic |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 2.0 | 6.0 | |
| CAT 307C Excavator | ↓ | ↓ | 2.0 | 6.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Boat/Motor | ↓ | ↓ | | | |
| TL230 Skidster | 8/12/13 → 8/15/13 | ↓ | 2.0 | 6.0 | |
| Magnum Generator | 8/15/13 → present | ↓ | 4.0 | 2.0 | |
| | | | | | |

3. Work performed today:

Tow-behind generator on-site and was wired in to job trailer.
Work continued with the draw-down of the pond.
Surface water samples were collected and submitted
Normandeau staff (Andrew) on-site for biological survey.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

5. Test performed as required by plans and/or specifications:

Surface water quality sampling

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:


None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Morning tailgate safety meeting was conducted, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *8/15/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Daily Report No.: 000
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 16 AUG-13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 55 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Lull | 8/9/13 → present | Daily | 1.0 | 2.0 | |
| CAT 307C Excavator | ↓ | ↓ | 1.0 | 2.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Bout/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 ↓ | ✓ | 7.0 | 0.0 | |
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3. Work performed today:

Continued to drawdown Plow Shop Pond. Normandeau on-site to conduct biological surveys. Surface water quality samples were collected. Additional sandbags were added to pond inlet dam.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

5. Test performed as required by plans and/or specifications:

Surface water quality samples were collected

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

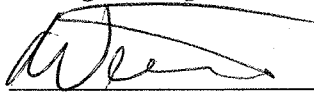
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Morning tailgate safety meeting was conducted, review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

RC+D to monitor pumps over weekend.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *0/16/13*
Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 007
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 19 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 60 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|------------|------------------------------|
| Bill Borowicz | 9.0 | Source | S. Supervisor |
| Laura Simkins | 9.0 | Source | Wetland Specialist |
| Don Mason | 6.5 | Normandean | Biologist |
| Jim Henebury | 4.0 | RCTA | S. Supervisor |
| Luciana Ribeiro | 4.0 | RCTA | Operator |
| Tony Rega | 4.0 | RCTA | Laborer |
| Arnold Johnston | 8.0 | WSP | Surveyor |
| Samuel Johnston | 8.0 | WSP | Surveyor |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/4/13 → present | Daily | 1.0 | 3.0 | |
| CAT 307 Excavator | 8/9/13 → 8/14/13 | ↓ | 1.0 | 3.0 | |
| Global Pumps | 8/9/13 → present | ↓ | | | |
| Boat Motor | 8/9/13 | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 9.0 | 0.0 | |
| CAT 320C Excavator | 8/14/13 | ↓ | 2.0 | 2.0 | |
| John Deere 870 Excavator | | | 2.0 | 2.0 | |

3. Work performed today:

Continue with pond dewatering. Pump P-2 was shut down by RCED over the weekend. MassDEP on-site to perform site walk. Long-Strick excavator was delivered on-site. We had an railroad flagmen while the excavator transversed the railroad property. Inspection of pond inlet dam revealed that water is upwelling beneath the large super-sacks. Surface water quality samples were collected/submitted.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

5. Test performed as required by plans and/or specifications:

Surface water quality testing was performed

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

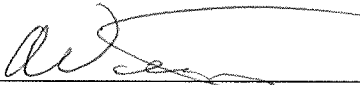
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 8/19/13
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 008
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 20 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 65 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 0.0 | | |
| Global Pumps Pump/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 0.0 | | |
| CA1320C Excavator | 8/19/13 | ↓ | 0.0 | | |
| J. Deere 270 Excavator | 8/19/13 ↓ | ↓ | 0.0 | | |
| | | ↓ | | | |

3. Work performed today:

Continue with Pond drawdown. Surface water Quality Testing was conducted. Downloaded site photographs and renamed them accordingly.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

5. Test performed as required by plans and/or specifications:

Surface water Quality testing.

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

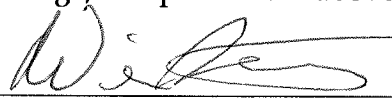
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 01/00/13
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 009
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 21 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly sunny
Precipitation: None Temp: 85 Min. 89 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|------------|------------------------------|
| Acc | | | |
| Bill Browne | 10.5 | Sovereign | Site Superintendent |
| Jim Heneburg | 8.0 | RC+D | Contact Rep |
| Laura Sinkins | 5.0 | Sovereign | Wetland Specialist |
| Don Mason | 5.0 | Normandeau | Biologist |
| Luciano Ribeiro | 10.5 | RC+D | Operator |
| Tony Rego | 10.5 | RC+D | Laborer |
| Ellen Iorio | 2.0 | USACE | USACE |
| Jim Morocco | 2.0 | USACE | USACE |
| Mark Walsh | 2.0 | USACE | USACE |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 4.0 | 5.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Boat/Motor | ↓ | ↓ | | | |
| Magnum generator | 8/15/13 | ↓ | 10.5 | 0.0 | |
| CAT 320C Excavator | 8/19/13 | ↓ | 7.0 | 5.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 4.0 | 5.0 | |
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3. Work performed today:

CQM-preparatory-phase meetings w/ corp.
Continued w/site prep activities and GPS calibration
Surface Water samples were collected.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

P- for SATI MOB/site prep
SATI Removal Action
Red cone MOB/site prep
Red cone Removal Action

5. Test performed as required by plans and/or specifications:

Surface water sample collection

6. Material received:

One trailer load of timber mats

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

N/A

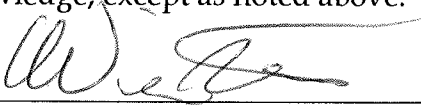
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

RC+D would like to construct access road between SHLF and SAFI. It would be at their cost. They would install silt fence, deploy piping over snake, and restore site. Marc C. will ask Corps.
USACE responded and is ok so long as the stipulations are met.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



Sovereign Consulting QC Representative
Date 8/21/13

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Date: 22 AUG 13

Weather: mostly sunny
Precipitation: none Temp: 65 Min. 85 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 6.0 | 5.25 | |
| Global Pumps Boat/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 11.25 | 0.0 | |
| CAT 320C Excavator | 8/19/13 | ↓ | 2.0 | 9.25 | |
| J. Deere 270 Excavator | ↓ | ↓ | 2.0 | 9.25 | |
| Mini-Excavator | 8/22/13 ↓ | ↓ | 6.0 | 5.25 | |

3. Work performed today:

Site work → improved access roadway between SHLF and SA 71. Made repairs to the pond inlet dam by clearing the base and adding a second level of sandbags.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

Surface water sample was performed

6. Material received:

Trailer-load of straw wattles.

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Performed Morning tailgate safety meeting. Reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

W. [Signature] *8/20/13*
Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 011
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 23 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 60 Min. 30 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|------------------|-------|------------|------------------------------|
| Bill Borowiec | 8.75 | SouCon | S-Superintendent |
| Laura Simkins | 4.0 | SouCon | Wetland Specialist |
| Don Mason | 4.0 | Normandeau | Biologist |
| Jeff Brunelle | 3.5 | Nobis | EPA-rep |
| Luciano Ribeiro | 8.0 | RCTB | Operator |
| Tony Rego | 8.0 | RCTB | Laborer |
| Alex Ribeiro | 8.0 | RCTB | Operator/Laborer |
| Denis Alix | 4.0 | S+M farms | Laborer/Subcontractor |
| Jose Navarro | 4.0 | S+M farms | Laborer/Subcontractor |
| Norman Thibodeau | 4.0 | S+M farms | Laborer/Subcontractor |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 0.0 | 8.0 | |
| Global Pumps Boat/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 8.75 | 0.0 | |
| CAT 320C Excavator | 8/19/13 | ↓ | 0.75 | 6.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 0.75 | 6.0 | |
| Mini-Excavator | 8/22/13 | ↓ | 4.75 | 4.0 | |

3. Work performed today:

Silt fencing was installed in the vicinity of the newly constructed access road and a staging area for the sediments was established upland. Snow fencing was installed around pond perimeter.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

Surface water sampling was conducted

6. Material received:

Snow fencing and Grade stakes
Two (2) Porta-Johns

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed SSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Winters *9/23/13*
Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 012
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 26 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy
Precipitation: none Temp: 65 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|------------|------------------------------|
| Bill Borawiec | 9.5 | Sovereign | S. supervisor |
| John Curran | 8.5 | RC + D | S. Supervisor |
| Laura Sinkins | 7.0 | SouCon | Wetland Specialist |
| Sam Landry | 5.0 | SouCon | Env Sci |
| Brittany Smith | 5.0 | SouCon | Env Sci |
| Erin Foley | 5.0 | SouCon | Env Sci |
| Matt Bedford | 3.0 | SouCon | Hts officer |
| Andrew Thompson | 4.0 | Normandeau | Biologist |
| Luciano Ribeiro | 8.5 | RC + D | Operator |
| Alex Ribeiro | 8.5 | RC + D | Operator / Laborer |
| Tony Rego | 8.5 | RC + D | Laborer |
| Antonio C.C. | 8.5 | RC + D | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 2.0 | 6.5 | |
| Global Pumps Boat Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 9.5 | 0.0 | |
| CAT 320C Excavator | 8/19/13 | ↓ | 6.5 | 2.0 | |
| John Deere 270 Excavator | ↓ | ↓ | 8.0 | 0.5 | |
| Yanmar iL 45 ATV | 8/26/13 | ↓ | 2.0 | 6.5 | |
| Yanmar CS0R ATV | ↓ | ↓ | 2.0 | 6.5 | |
| Mini-Excavator | 8/22/13 | ↓ | 2.0 | 6.5 | |

3. Work performed today:

-Installed straw wattles just outside of SA71. Began remedial excavation @ SA71. Sampled grids 09, 10, and 08.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

Surface Water Sampling and confirmatory post-excavation sediment sampling

6. Material received:

None

7. Submittals Reviewed: *None*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
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8. Offsite surveillance activities, including action taken:

N/A

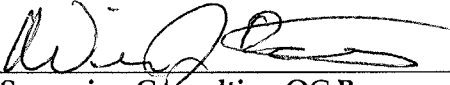
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted Morning tailgate meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 8/26/13
Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 013
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 27 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 70 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|------------------|-------|------------|------------------------------|
| Bill Borowiec | 9.0 | SouCon | Sr Superintendent |
| John Curran | 8.5 | RC+D | S. Superintendant |
| Laura Simkins | 5.5 | SouCon | Wetland Specialist |
| Rachel Leary | 5.5 | SouCon | PM |
| Don Mason | 4.0 | Normandeau | Biologist |
| Jeff Dulkanan | 4.0 | RC+D | PM |
| Lucciano Ribeiro | 8.5 | RC+D | Operator |
| Anthony C.C. | 8.5 | RC+D | Laborer |
| Alex Ribeiro | 8.5 | RC+D | Operator/Laborer |
| Tony Rego | 8.5 | RC+D | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | daily | 6.0 | 2.5 | |
| Global Pumps | | | | | |
| Boat/Motor | | | | | |
| Magnum Generator | 8/15/13 | | 9.0 | 0.0 | |
| CAT 322C Excavator | 8/19/13 | | 6.0 | 2.5 | |
| J. Deere 270 Excavator | | | 6.0 | 2.5 | |
| Yanmar LC45 | 8/26/13 | | 6.0 | 2.5 | |
| Yanmar C50r | | | 6.0 | 2.5 | |
| mini-excavator | 8/22/13 | | 2.5 | 6.0 | |
| J. Deere 250D dump | 8/27/13 | | 6.0 | 2.5 | |
| CAT D5 Dozer | 8/27/13 | | 6.0 | 2.5 | |

3. Work performed today:

Work continued on the SHLF-Flow Shop Pond access road. Sections of chain-link fencing were removed at Red Cove and surface water samples were collected. Additional hay wattles were installed @ SA 71.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

Collected Surface Water Samples

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *06/07/13*
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 014
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 28 AUG-13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 65 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|------------|------------------------------|
| Bill Borowiec | 9.5 | SouCon | S. Supervisor |
| Laura Simkins | 4.0 | SouCon | Wetland Specialist |
| Brittany Smith | 7.75 | SouCon | Env Sci |
| Eoin Foley | 7.75 | SouCon | Env Sci |
| Rachel Leary | 6.75 | SouCon | PM |
| John Curran | 8.0 | RCTD | S. Supervisor |
| Marc Cicalese | 3.5 | SouCon | Program Manager |
| Antonio C.C. | 9.0 | RCTD | Operator/Laborer |
| Alex Ribeiro | 9.0 | RCTD | Operator |
| Tony Rego | 9.0 | RCTD | Laborer |
| Luciano Ribeiro | 9.0 | RCTD | Operator |
| Andrew Thompson | 2.0 | Normandeau | Biologist |
| Ben Athaide | 9.0 | SepeTree | Laborer |
| Gino DeVecchis | 9.0 | SepeTree | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 4.0 | 5.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Boss Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | | 9.5 | 0.0 | |
| CAT 322C Excavator | 8/19/13 | | 4.0 | 5.0 | |
| J. Deere 870 Excavator | ↓ | ↓ | 6.0 | 3.0 | |
| Yanmar IC45 | 8/20/13 | | 4.0 | 5.0 | |
| Yanmar C50R | ↓ | ↓ | 4.0 | 5.0 | |
| mini-excavator | 8/22/13 | | 2.0 | 7.0 | |
| J. Deere 250 Dump | 8/27/13 | | 6.0 | 3.0 | |
| Cat D5 Dozer | ↓ | ↓ | 0.0 | 0.0 | 9.0 |

3. Work performed today:

~~Permed~~ Remedial Excavation in grids 07, 06, 05, 04, 15, 14, 13, 03, 12, and 02. Post-excavation samples were collected from grids 07, 06, 05, 04, 15, 14, 13, 03, 12, and 02. Conducted weekly meeting w/corp. Surface water samples were collected and tree and brush clearing/grubbing activities commenced at Red Cove.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Surface Water Sample / Post Excavation
Endpoint Sediment Sampling, dust monitoring

6. Material received:

None

7. Submittals Reviewed: None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date 8/28/13

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 015
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 29 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy

Precipitation: none Temp: 60 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|------------|------------------------------|
| Bill Borowiec | 10.05 | SouCon | Sr. Supervisor |
| Laura Sinkins | 7.5 | SouCon | Wetland Specialist |
| Rachel Leary | 5.0 | SouCon | PM |
| Brihany Smith | 5.0 | SouCon | Env Sci |
| Erin Foley | 5.0 | SouCon | Env Sci |
| John Curran | 8.0 | RCTD | Sr. Supervisor |
| Luciano Ribeiro | 8.0 | RCTD | Operator |
| Antonio C.C. | 10.0 | RCTD | Operator/Laborer |
| Alex Ribeiro | 10.0 | RCTD | Operator |
| Tony Rego | 10.0 | RCTD | Laborer |
| Ben Athaide | 8.5 | Sepe Tree | Laborer |
| Gino DeVecchis | 8.5 | Sepe Tree | Laborer |
| Andrew Thompson | 2.25 | Normandean | Biologist |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 7.0 | 3.0 | |
| Global Pumps Boat/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 10.25 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | ↓ | 7.0 | 3.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 9.0 | 1.0 | |
| Yanmar LC 45 | 8/26/13 | ↓ | 7.0 | 3.0 | |
| Yanmar C50R | ↓ | ↓ | 7.0 | 3.0 | |
| mini-excavator | 8/22/13 | ↓ | 0.0 | 10.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 7.0 | 3.0 | |
| Cat D5 Dozer | ↓ | ↓ | 0.0 | 0.0 | 10.0 |

3. Work performed today:

Began mixing stockpiled sediments w/quicklime drying agent.
A cast-concrete structure was placed at the pump intake location
at pond dam. Tree/brush clearing/grubbing was conducted at Red Cove.
Surface water samples were collected. Remedial excavation
in grid 01 was conducted and grid 01 was sampled.
Conducted public site walk in afternoon.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Surface water sampling / Confirmatory
Post-Excavation endpoint samples were collected.

6. Material received:

QUICKLIME drying agent.

7. Submittals Reviewed: QUICKLINE MSDS

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

01/29/13

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 016
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 30 AUG 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 60 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borowiec | 8.5 | Sovereign | Sr Supervisor |
| Laura Simkins | 4.0 | Sovereign | Wetland Specialist |
| Erin Foley | 4.0 | Sovereign | Env Sci |
| Sam Landry | 4.0 | Sovereign | Env Sci |
| Alex Ribeiro | 8.5 | RCID | Operator/Laborer |
| Antino C.C. | 8.5 | RCID | Laborer |
| Tony Rego | 8.5 | RCID | Laborer |
| Jim Henkburg | 2.0 | RCID | Sr Supervisor |
| John Curran | 8.0 | RCID | Sr Supervisor |
| Don Mason | 3.0 | Normandeau | Biologist |
| Gino DeVecchis | 8.0 | Sepe Tree | Laborer |
| Ben Athaide | 8.0 | Sepe Tree | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 2.5 | 6.0 | |
| Global Pumps | | | | | |
| Boat/Motor | ↓ | | | | |
| Magnum Generator | 8/15/13 | | 8.5 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | | 6.5 | 2.0 | |
| J. Deere 270 Excavator | ↓ | | 6.5 | 2.0 | |
| Yanmar 1c45 | 8/26/13 | | 6.5 | 2.0 | |
| Yanmar c50r | ↓ | | 6.5 | 2.0 | |
| Mini excavator | 8/22/13 → 8/30/13 | | 1.0 | 7.5 | |
| J. Deere 250 Dump | 8/27/13 → present | | 6.5 | 2.0 | |
| Cat D5 Dozer | ↓ | | 0.0 | 0.0 | 8.5 |

3. Work performed today:

Continued to mix QUICKLIME with stockpiled soils at shoreline of SATF. Transported these soils to the upland staging area. Continued with remedial excavation in grid ~~0~~. Collected sediment from grid ~~0~~ 10, 11, 17 and 16. Collected surface water samples.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

Collected surface water samples, sediment samples and recorded ~~just~~ readings.

6. Material received:

None

7. Submittals Reviewed: None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting reviewed
JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date 06/30/13

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 017
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 03SEP13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 65 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borowiec | 9.0 | SouCon | S. Superintendent |
| Laure Simkins | 4.0 | SouCon | Wetland specialist |
| Eria Foley | 5.0 | SouCon | Env Sci |
| Brittany Smith | 5.0 | SouCon | Env Sci |
| Sam Landry | 5.0 | SouCon | Env Sci |
| Matt Bedford | 2.0 | SouCon | Hts Officer |
| Alex Ribeiro | 8.5 | RC+D | Operator/Laborer |
| Antonio C.C. | 8.5 | RC+D | Laborer |
| Aaron LaChance | 8.5 | RC+D | S. Superintendent |
| Tony Rego | 8.5 | RC+D | Laborer |
| Gino DeVerchis | 8.5 | SepeTree | Laborer |
| David Lavery | 8.5 | SepeTree | Laborer |
| John Curran | 4.0 | RC+D | S. Superintendent |
| Don Mason | 3.0 | Normandeau | Biologist |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | daily | 2.5 | 6.0 | |
| Global Pumps | | | | | |
| Bout Motor | ↓ | | | | |
| Magnum Generator | 8/15/13 | | 9.0 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | | 6.0 | 2.5 | |
| J. Deere 270 Excavator | ↓ | | 2.5 | 6.0 | |
| Yanmar LC45 | 8/26/13 | | 6.0 | 2.5 | |
| Yanmar C50R | ↓ | | 6.0 | 2.5 | |
| John Deere 250 Dump | 8/27/13 | | 6.0 | 2.5 | |
| Cat D5 Dozer | ↓ → 9/3/15 | | 0.0 | 0.0 | 8.5 |
| Cat D3 Dozer | 9/3/13 → present | | 2.5 | 6.0 | |

3. Work performed today:

Red Cove site prep (clearing/grubbing). Surface
water samples were collected.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

Surface water sampling

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting,
reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 9/3/13
Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 018
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 04SEP13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: partly cloudy
Precipitation: none Temp: 60 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borowiec | 8.0 | SouCon | Sr Supervisor |
| Laura Simkins | 4.0 | SouCon | Wetland Specialist |
| Rachel Leary | 5.0 | SouCon | PM |
| Aaron Lachance | 8.0 | RCTD | Sr Supervisor |
| Antonio C.C. | 8.0 | RCTD | Laborer |
| Alex Ribeiro | 8.0 | RCTD | operator/Laborer |
| Tony Rego | 8.0 | RCTD | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | Daily | 6.0 | 2.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Bout/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | | 8.0 | 0.0 | |
| CAT 322 Excavator | 8/9/13 | | 6.0 | 2.0 | |
| J-Deere 270 Excavator | ↓ | ↓ | 2.0 | 6.0 | |
| Yanmar ic 45 | 8/26/13 | | 6.0 | 2.0 | |
| Yanmar C50r | ↓ | ↓ | 6.0 | 2.0 | |
| John Deere 250 Dump | 8/27/13 | | 6.0 | 2.0 | |
| Cat D3 Dozer | 9/3/13 | | 6.0 | 2.0 | |

3. Work performed today:

Red Cove site prep/access road installation
Surface water sampling
Weekly meeting w/Corp. (Ellen)

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

Surface water sampling

6. Material received:

None

7. Submittals Reviewed: *None*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken)

Conducted morning tailgate safety meetings, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *9/4/13*

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 019
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 05 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy, 1/2 rain
Precipitation: none Temp: 50 Min. 45 Max. 55
1/2 rain

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|------------|------------------------------|
| Bill Borowiec | 8.75 | SouCon | Sr Supervisor |
| Erin Foley | 5.0 | SouCon | Env Sci |
| Aaron Lachance | 8.5 | RC+B | Sr Supervisor |
| Alex Ribeiro | 8.5 | RC+B | Operator/Laborer |
| Tony Rejo | 8.5 | RC+B | Laborer |
| David Lavery | 5.0 | Sepe Tree | Laborer |
| John Marchand | 5.0 | Sepe Tree | Laborer |
| Don Mason | 2.5 | Normandeau | Biologist |
| Arnold Johnston | 5.0 | WSP | Surveyor |
| Samuel Johnston | 5.0 | WSP | Surveyor |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Well | 8/9/13 → present | daily | 2.5 | 6.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Pump/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 8.75 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | ↓ | 6.0 | 2.5 | |
| J. Deere 370 Excavator | ↓ | ↓ | 6.0 | 2.5 | |
| Yanmar ic45 | 8/26/13 | ↓ | 4.0 | 4.5 | |
| Yanmar 650r | ↓ | ↓ | 4.0 | 4.5 | |
| Deere 250 dump | 8/27/13 | ↓ | 4.0 | 4.5 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 6.0 | 2.5 | |

3. Work performed today:

Red Cove site prep, clearing/grubbing.
Surveyors on-site to set destroyed controls at Red Cove.
Surface water samples were collected. Constructed
a settling pond/basin in the west to dewater SA 71
to aid with the remedial excavation

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

Surface Water Sampling

6. Material received:

Load of stone (rip-rap) and filter fabric
for settling pond/basin

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

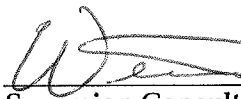
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Tested the dewatering system at SA 71, it appears to work and discharge overflow water which is less turbid than the surrounding water.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 9/5/13
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 020
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 06 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly sunny
Precipitation: none Temp: 45 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borowiec | 8.75 | SouCon | S. Supervisor |
| Rachel Leary | 5.5 | SouCon | PM |
| Brittany Smith | 7.5 | SouCon | Env. Sci |
| Sam Dayin | 7.5 | SouCon | Geologist |
| Erin Foley | 7.5 | SouCon | Env. Sci. |
| Aaron Lachance | 8.5 | RCTD | S. Supervisor |
| Tony Rego | 8.5 | RCTD | Laborer |
| Alex Ribiropi | 8.5 | RCTD | Operator/Laborer |
| Don Mason | 8.5 | Normandeau | Biologist |
| Jeff Brunelle | 1.0 | Nobis | EPA rep. |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | daily | 2.5 | 6.0 | |
| Global pumps | ↓ | ↓ | | | |
| Beutl Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 8.75 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | ↓ | 2.5 | 6.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 6.5 | 2.0 | |
| Yanmar ic45 | 8/26/13 | ↓ | 6.5 | 2.0 | |
| Yanmar c50r | ↓ | ↓ | 6.5 | 2.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 6.5 | 2.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 6.5 | 2.0 | |

3. Work performed today:

Dewatered SA71, Re-dig of SA-71 at
grids 05, 04, 06, 15' and 14. (Noted PAH odors in
excavated soils) - collected surface water samples.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

Sediment samples from SA71 re-dig
Surface water sampling

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed
JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

~~At~~ Dewatering SAFI is marginally
better while excavating. Soucon used visual
indications of peat to direct excavation methods.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

9/6/13

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 021
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 09SEP13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 43 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|-----------|------------------------------|
| Bill Borowiec | 8.0 | Sovereign | Sr. Supervisor |
| John Curran | 8.0 | RC+D | Sr. Supervisor |
| Alex Ribeiro | 8.0 | RC+D | Operator/Laborer |
| Tony Rego | 8.0 | RC+D | Laborer |
| Aaron Lachance | 8.0 | RC+D | Sr. Supervisor/Operator |
| Ken Strom | 5.0 | Land Tech | Surveyor |
| Todd LaPlante | 5.0 | Land Tech | Surveyor |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | daily | 6.5 | 6.5 | |
| Global Pumps | ↓ | ↓ | | | |
| Boat/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 8.0 | 0.0 | |
| CAT 320 Excavator | 8/19/13 | ↓ | 1.5 | 6.5 | |
| J-Deere 270 Excavator | ↓ | ↓ | 6.5 | 1.5 | |
| Yanmar IC45 | 8/26/13 | ↓ | 6.5 | 1.5 | |
| Yanmar E50r | ↓ | ↓ | 6.5 | 1.5 | |
| J. Deere 250Amp | 8/27/13 | ↓ | 6.5 | 1.5 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 6.5 | 1.5 | |

3. Work performed today:

Constructed Red Cove sediment staging areas, solidified
SAZI sediments with QUICKLIME drying agent.
Surveyors on-site to shoot elevations (lasers) at Red Cove.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

None

6. Material received:

One dump-trailer of QUICKLIME drying agent.

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

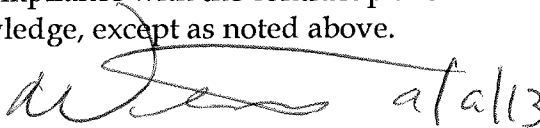
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 022
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 10SEP13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy, lt rain

Precipitation: 0.09 Temp: 60 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borowiec | 8.5 | SouCon | Sr Supervisor |
| Laura Sinkins | 4.25 | SouCon | Wetland Specialist |
| Sam Landry | 2.5 | SouCon | Env Sci |
| Erin Foley | 2.5 | SouCon | Env Sci |
| Rachel Leary | 3.5 | SouCon | PM |
| Dan Mason | 3.5 | Normandeau | Biologist |
| Aaron Lachance | 6.0 | RC+D | Sr Supervisor |
| Tony Rego | 6.0 | RC+D | Laborer |
| Michael Rego | 6.0 | RC+D | Operator/Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arriyal/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | daily | 2.0 | 4.0 | |
| Globul Pumps Boat/Motor | ↓ | ↓ | | | |
| Magnus Generator | 8/15/13 | ↓ | 8.5 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | ↓ | 6.0 | 0.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 5.0 | 1.0 | |
| Yanmar ic45 | 8/26/13 | ↓ | 5.0 | 1.0 | |
| Yanmar CS0r | ↓ | ↓ | 5.0 | 1.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 2.0 | 4.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 2.0 | 4.0 | |

3. Work performed today:

Re-digs of SAFI grids 01, 11, 03, and 13 and sampling of the above listed grids. Excavated sediments were transferred to SAFI staging area. Surface water samples were collected and pond survey was conducted.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

Surface water sampling and confirmatory post-execution samples were taken.

6. Material received:

None

7. Submittals Reviewed: None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

During the Redig of S171, we removed the "sludge" and dug to the peat layer where we sampled peat.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

9/10/13

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 023
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 11 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 74 Min. 97 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|-----------|------------------------------|
| Bill Borawiec | 9.0 | Sovereign | S. Supervisor |
| Rachel Leary | 3.5 | Soc Con | PM |
| Erin Foley | 8.0 | Soc Con | Env Sci |
| Sam Davis | 8.0 | Soc Con | Geologist |
| Aaron LaChance | 9.0 | RC + D | S. Supervisor |
| John Cabral | 9.0 | RC + D | Laborer |
| Michael Rego | 9.0 | RC + D | Operator/Laborer |
| Robert Braga | 9.0 | RC + D | Laborer |
| Carlos Oliveira | 9.0 | RC + D | Laborer |
| Alex Ribeiro | 9.0 | RC + D | Operator/Laborer |
| Tony Rego | 9.0 | RC + D | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | daily | 0.0 | 9.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Bent/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 9.0 | 0.0 | |
| CAT 320 Excavator | 8/19/13 | ↓ | 3.0 | 5.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 6.0 | 3.0 | |
| Yanmar i645 | 8/26/13 | ↓ | 2.0 | 7.0 | |
| Yanmar C50R | ↓ | ↓ | 2.0 | 7.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 6.0 | 3.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 2.0 | 7.0 | |

3. Work performed today:

Re-dig at SA71 of grid 07. Started remedial excavation at Red Cove. Sampled grids 52 and 43 @ RC. Collected waste char samples from SA71 stockpiles for conducting. Conducted weekly meeting w/CORP.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

Conducted Initial Phase Inspections for SA71 MOB/site Prep, SA71 Removal Action, Red Cove MOB/site prep, and Red Cove Removal Action.

5. Test performed as required by plans and/or specifications:

Confirmatory post-excavation sediment sampling

6. Material received:

None

7. Submittals Reviewed: *None*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

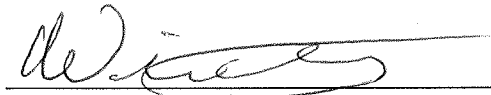
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *9/11/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 12 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: partly cloudy

Precipitation: none Temp: 68 Min. 90 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Lull | 8/9/13 → present | daily | 0.0 | 8.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Boat/Motor | ↓ | ↓ | | | |
| Magnus Generator | 8/15/13 | ↓ | 9.0 | 0.0 | |
| CAT 322 Excavator | 8/14/13 | ↓ | 4.0 | 4.0 | |
| J. Deere 370 Excavator | ↓ | ↓ | 7.0 | 1.0 | |
| Yanmar LC 45 | 8/26/13 | ↓ | 2.0 | 6.0 | |
| Yanmar C50R | ↓ | ↓ | 2.0 | 6.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 4.0 | 4.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 4.0 | 4.0 | |

3. Work performed today:

Continued with Red Cove remedial excavation and
finger access road construction into Plow Shop Pond. Sampled
Red Cove grids 51, 42, and 32.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Confirmatory post-excavation sediment sampling

6. Material received:

None

7. Submittals Reviewed: None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

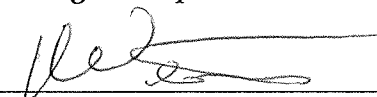
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting.
Reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

9/12/13

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 025
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 13 SEPT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: cloudy, 11 rain

Precipitation: _____ Temp: _____ Min. _____ Max. _____

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borowiec | 8.75 | SouCon | S. Supervisor |
| Sam Devin | 8.0 | SouCon | Geologist |
| Laura Simkins | 4.0 | SouCon | Wetland Specialist |
| Erin Foley | 8.0 | SouCon | Env Sci |
| Aaron Lachance | 8.5 | RC + D | S. Supervisor |
| Tony Rego | 8.0 | RC + D | Laborer |
| Mike Rego | 8.0 | RC + D | Laborer/Operator |
| Alex Ribeiro | 8.0 | RC + D | Laborer/Operator |
| Don Mason | 3.0 | Normandeau | Biologist |
| Jeff Bernell | 2.0 | Nobis | EPA rep. |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/13/13 → present | daily | 0.0 | 8.0 | |
| Global Pumps | ↓ | ↓ | | | |
| Boat/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 8.0 | 0.0 | |
| CAT 330 Excavator | 8/19/13 | ↓ | 4.0 | 4.0 | |
| J. Deere 220 Excavator | ↓ | ↓ | 6.0 | 2.0 | |
| yanmar ic45 | 8/26/13 | ↓ | 2.0 | 6.0 | |
| yanmar c50r | ↓ | ↓ | 2.0 | 6.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 6.0 | 2.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 2.0 | 6.0 | |

3. Work performed today:

Repaired access road to SUEP and site erosion controls that were damaged during overnight storms. Continued with excavation at Red Cove. Sampled Red Cove grid 33. Surface water samples were collected and pond survey was completed.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

Post-excavation confirmatory sediment sampling and surface water sample.

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

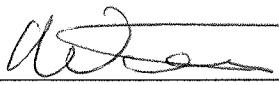
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 2/13/13
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 026
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 16 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly cloudy

Precipitation: _____ Temp: _____ Min. _____ Max. _____

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-----------------|-------|----------|------------------------------|
| Bill Bonaura | 9.0 | Soucon | S. Supervisor |
| Erin Foley | 5.0 | Soucon | Env. Sci |
| Sam Davin | 5.0 | Soucon | Geologist |
| Adron LaChance | 8.5 | RCTD | S. Supervisor |
| Alex Ribeiro | 8.5 | RCTD | operator/Laborer |
| Mike Rego | 8.5 | RCTD | Operator/Laborer |
| Tony Rego | 8.5 | RCTD | Laborer |
| Luciano Ribeiro | 8.5 | RCTD | operator |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lull | 8/9/13 → present | daily | 1.0 | 7.5 | |
| Global Pumps | ↓ | ↓ | | | |
| Bact/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 9.0 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | ↓ | 6.0 | 2.5 | |
| J. Deere 270 Excavator | ↓ | ↓ | 6.0 | 2.5 | |
| Yanmar 245 | 8/26/13 → 9/16/13 | ↓ | 2.5 | 6.0 | |
| Yanmar 50R | ↓ 9/16/13 | ↓ | 2.5 | 6.0 | |
| J. Deere 250 comp | 8/27/13 → present | ↓ | 2.5 | 6.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 2.5 | 6.0 | |

3. Work performed today:

The southern grids of SA71 were dug out to the forecasted depths. However, based on overwhelming visual appearance of coal-related impacts, were not sampled. Instead test pits were performed to see how deep visual impacts were and lateral shoreline trenches were also performed to see if the debris continued South. See #5 for further

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Test pits → ① oily odor, r/ties, pipes, oily soils but not coal/brick, but @ 5-6 ft
② coal/brick to 5-6 ft, deeper than that is the peat layer
③ same as above (CAA)
④ SAA

Shore line → ① oily odor, soils but not brick/coal
② observed brick/coal as far back as 15 ft
③ observed brick/coal as far back as 20 ft

6. Material received:

None

7. Submittals Reviewed: None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 9/16/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 027
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 17 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: _____ Min. _____ Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borowiec | 8.5 | SouCon | Sr Supervisor |
| Erin Foley | 7.5 | SouCon | Env Sci |
| Laura Sinking | 4.0 | SouCon | Wetland Specialist |
| Sam Davin | 7.5 | SouCon | Geologist |
| Don Mason | 3.0 | Normandeau | Biologist |
| Robert Holwik | 1.0 | SouCon | Corp. Hts officer |
| Matt Bedard | 1.0 | SouCon | Hts Officer |
| Mike Regio | 8.5 | RCTD | operator/Laborer |
| Richard Ahern | 8.5 | RCTD | Operator/Laborer |
| Arnon Lachance | 8.5 | RCTD | Sr Supervisor |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arriyal/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Lot 1 | 8/13/13 | 8/13/13 | | | |
| Global Pumps | ↓ | ↓ | | | |
| Boat/Motor | ↓ | ↓ | | | |
| Magnum Generator | 8/15/13 | ↓ | 8.5 | 0.0 | |
| CAT 330 Excavator | 8/14/13 | ↓ | 6.5 | 2.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 6.5 | 2.0 | |
| J. Deere 250 Pump | 8/17/13 | ↓ | 4.5 | 4.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 2.0 | 6.5 | |

3. Work performed today:

Continued w/ shoreline test pits to determine the lateral extent in the southern shoreline of SA-71. See field notes for results. Finger road into Red Cove was completed. Red Cove grids 50 and 55 were sampled. Surface Water samples and pond survey completed.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Confirmatory post excavation endpoint samples and surface water sampling.

6. Material received:

None

7. Submittals Reviewed: None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting
reviewed JSAs. Soucon corp. HHS officer and
Forbes HHS officer on-site

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

9/17/13

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 028
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 18 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 40 Min. 76 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borawiec | 8.5 | SouCon | Sr Supervisor |
| Erin Foley | 5.0 | SouCon | Env Sci |
| Sam Davin | 5.0 | SouCon | Geologist |
| Marc Cickase | 8.5 | SouCon | Program Manager |
| Aaron Lachance | 8.5 | RCTB | Sr Supervisor/Laborer |
| Tony Rego | 8.5 | RCTB | Laborer |
| Murphy | 8.5 | RCTB | operator/Laborer |
| Richard Ahern | 8.5 | RCTB | Operator |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 8.5 | 0.0 | |
| CAT 332 Excavator | 8/19/13 | ↓ | 7.5 | 1.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 7.5 | 1.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 7.5 | 1.0 | |
| Cat D3 Dozer | 9/3/13 | ↓ | 2.5 | 6.0 | |
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3. Work performed today:

Solidification of Red Cove sediments and Red Cove excavation/sampling of Grid 41. USACE on-site to conduct weekly meeting.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Confirmatory post-excavation sediment sampling of Red Cove Grid 41.

6. Material received:

One (1) load of quicklime

7. Submittals Reviewed: *None*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:


None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

9/18/13

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 029
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 19 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 50 Min. 73 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borowicz | 9.0 | SouCon | Sr Supervisor |
| Laura Simkins | 4.0 | SouCon | Wetland Specialist |
| Erin Foley | 4.75 | SouCon | Env Sci |
| Sam Davin | 4.75 | SouCon | Geologist |
| Aaron Lachance | 8.5 | RCFD | S-Supervisor/Operator |
| Tony Rego | 8.5 | RCFD | Laborer |
| Mike Rego | 8.5 | RCFD | Laborer |
| Richard Ahern | 8.5 | RCFD | Operator |
| Don Mason | 2.75 | Normandeau | Biologist |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 9.0 | 0.0 | |
| CAT 322 Excavator | 8/19/13 | | 7.5 | 1.0 | |
| J. Deere 270 Excavator | ↓ | | 7.5 | 1.0 | |
| J. Deere 250 Dump | 8/27/13 | | 6.5 | 2.0 | |
| CAT D3 Dozer | 9/3/13 | | 2.5 | 6.0 | |
| J. Deere 250 Dump | 9/19/13 | | 2.5 | 6.0 | |
| PC 200 Excavator | ↓ | ↓ | 0.0 | 0.0 | 5.0 |

3. Work performed today:

Continued with solidification of Red Cove sediments.
Dug and sampled RC Grid 40. Re-dug SAFI Grid II (3rd sampling).
Amphib. excav. cabin arrived on-site, crane on-site to pick.
Surface water samples collected/po

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Surface water sampling / Post-extraction

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety
meeting. Reviewed JSA's

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

9/19/13

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 080
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 20 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 50 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borewicz | 9.5 | SouCon | S. Supervisor |
| Rachel Leary | 5.0 | SouCon | PM |
| Erin Foley | 4.5 | SouCon | EhU Sci |
| Sam Davin | 4.5 | SouCon | Geologist |
| Aaron Lachance | 8.5 | RC+D | S. Supervisor/Operator |
| Tony Rego | 6.0 | RC+D | Laborer |
| Mike Rego | 6.0 | RC+D | Laborer/Operator |
| Richard Ahern | 8.5 | RC+D | Operator |
| Max Billiot | 8.0 | B+S | Operator |
| Jeff Brunell | 4.0 | Nobis | EPA Site Rep |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | daily | 9.5 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | ↓ | 6.5 | 2.0 | 0.0 |
| J. Deere 270 Excavator | ↓ | ↓ | 6.5 | 2.0 | 0.0 |
| J. Deere 250 Dump | 8/27/13 | ↓ | 6.5 | 2.0 | 0.0 |
| CAT 53 Dozer | 9/2/13 | ↓ | 2.0 | 6.5 | 0.0 |
| J. Deere 250 Dump | 9/19/13 | ↓ | 6.5 | 2.0 | 0.0 |
| RC 200 Excavator | ↓ | ↓ | 0.0 | 0.0 | 6.5 |

3. Work performed today:

Continued with Red Cove excavation and solidification of sediments. Sampled Red Cove grids 53 and 49. Astro Crane on-site to pick amphib. excavator pontoons and to aid in assembly of the machine.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Confirmatory post Excavation sediment sampling at Red Cove grids 53 and 49.

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

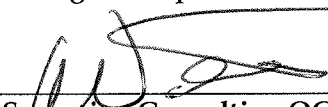
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting,
reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Assembled amphib. excavator on-site today.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative

Date

9/20/13

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 031
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 21 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 48 Min. 77 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | daily | | | |
| CAT 322 Excavator | 8/19/13 | | | | |
| J. Deere 270 Excavator | ↓ | | | | |
| J. Deere 250 Dump | 8/27/13 | | | | |
| CAT 63 Dozer | 9/3/13 | | | | |
| J. Deere 250 Dump | 9/19/13 | | | | |
| PC 200 Excavator | ↓ | | | | |

3. Work performed today:

Trial of amphib excavator in Red Cove. Excavated
sediments in Grids 35, 34, 44 and 26.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

~~Noone~~ None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 030
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 03 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Sunny
Precipitation: none Temp: 42 Min. 62 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Rachel Leary | 6.0 | SouCon | PM |
| Erin Foley | 7.0 | SouCon | Env Sci |
| Sam Davin | 8.0 | SouCon | Geologist |
| Tony Rego | 10.0 | RC+D | Laborer |
| Mike Rego | 10.0 | RC+D | Operator/Laborer |
| Richard Ahern | 10.0 | RC+D | operator |
| Aaron LaChance | 10.0 | RC+D | Operator/Si. supervisor |
| Max Billiot | 10.0 | B + S | Operator |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | daily | | | |
| CAT 320 Excavator | 8/19/13 | ↓ | | | |
| J. Deere 270 Excavator | ↓ | ↓ | | | |
| J. Deere 250 Dump | 8/27/13 | ↓ | | | |
| CAT D3 Dozer | 9/3/13 | ↓ | | | |
| J. Deere 250 Dump | 9/14/13 | ↓ | | | |
| PC 200 Excavator | ↓ | ↓ | | | |

3. Work performed today:

Continued to excavate Red Cone sediments using
amphib. excavator

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken)

Conducted morning tailgate safety meetings, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 033
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 24 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: partly cloudy
Precipitation: none Temp: 43 Min. 69 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Barowick | 10.5 | Sov Con | S. Supervisor |
| Eric Foley | 8.5 | Sov Con | Env Sci |
| Brittany Smith | 6.5 | Sov Con | Env Sci |
| Don Mason | 3.5 | Normandeau | Biologist |
| Aaron Lachance | 10.5 | RCTD | S. Supervisor |
| Tony Rego | 10.5 | RCTD | Laborer |
| Mike Rego | 10.5 | RCTD | Laborer/Operator |
| Richard Ahern | 10.5 | RCTD | Operator |
| Max Billiard | 10.5 | B + S | Operator |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/18/13 → present | daily | 10.5 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 | ↓ | 8.5 | 2.0 | |
| J. Deere 270 Excavator | ↓ | ↓ | 8.5 | 2.0 | |
| J. Deere 250 Dump | 8/27/13 | ↓ | 8.5 | 2.0 | |
| CAT D3 Dozer | 9/3/13 | ↓ | 2.0 | 8.5 | |
| J. Deere 250 Dump | 9/19/13 | ↓ | 8.5 | 2.0 | |
| PC 200 Excavator | ↓ | ↓ | 8.5 | 2.0 | |

3. Work performed today:

Continued to excavate Red core sediments w/ Amphib. excav.
and load out solidified red core sediments. Sampled
Red Core Grids 56 → 60. collected surface water samples.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Post-excavation sediment sampling of Red core
grids 56 → 60, and surface water sampling

6. Material received:

4 Supersacks of Sodium Polyacrylate "Polymer"

7. Submittals Reviewed: MSDS for polymer

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed SSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 9/24/13
Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 034
Contract No. **W912WJ-10-D-003** Task Order No. **005**

Date: 25 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly sunny
Precipitation: none Temp: 45 Min. 72 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | daily | 9.0 | 0.0 | |
| CAT 320 Excavator | 8/14/13 | ↓ | 8.0 | 1.0 | |
| J. Deere 270 Excavator | ↓ | | 8.0 | 1.0 | |
| J. Deere 250 Dump | 8/27/13 | | 8.0 | 1.0 | |
| CAT D3 Dozer | 9/3/13 | | 1.0 | 8.0 | |
| J. Deere 250 Dump | 9/14/13 | | 8.0 | 1.0 | |
| PC 200 Excavator | ↓ | ↓ | 4.0 | 5.0 | |

3. Work performed today:

Continued with excavation of Red Cove using Amphib. excav.
Red Cove grids 34, 35, & 44 were sampled from a boat
using GPS. Red Cove grid 25 was sampled using
Long-stick excavator.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

Post-excavation sediment sampling from Red Cove

6. Material received:

None

7. Submittals Reviewed:

None

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *9/25/13*
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.

DAILY QUALITY CONTROL REPORT

Daily Report No.: 035
Contract No. **W912WJ-10-D-003** Task Order No. **005**

Date: 26 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 50 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 9.5 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | | 6.5 | 2.5 | 0.0 |
| J. Deere 270 Excavator | ↓ | | 6.5 | 2.5 | 0.0 |
| J. Deere 250 Dump | 8/27/13 | | 6.5 | 2.5 | 0.0 |
| CAT D3 Dozer | 9/3/13 | | 2.5 | 6.5 | 0.0 |
| J. Deere 250 Dump | 9/14/13 | | 6.5 | 2.5 | 0.0 |
| PC 200 Excavator | ↓ | ↓ | 0.0 | 9.0 | 0.0 |

3. Work performed today:

RC+D crew on-site to fabricate barge for
Red Cone removal. Continued to solidify
excavated Red cone sediments

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

Dust track air monitoring

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

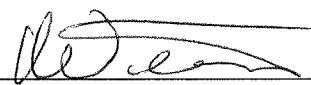
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *9/26/13*
Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 036
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 27 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy
Precipitation none Temp: 50 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borowiec | 9.0 | SouCon | S. Supervisor |
| Laurea Sinkins | 3.5 | SouCon | Wetland Specialist |
| Rachel Leary | 5.0 | SouCon | PM |
| Tony Rego | 8.5 | RC+B | Laborer |
| Mike Rego | 8.5 | RC+B | Laborer |
| Richard Ahern | 9.0 | RC+B | Operator |
| Aaron Lachance | 9.0 | RC+B | S-Supervisor |
| Max Billiot | 9.0 | B+S | Operator |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 9.0 | 0.0 | 0.0 |
| CAT 300 Excavator | 8/14/13 | ↓ | 8.0 | 1.0 | 0.0 |
| J. Deere 270 Excavator | ↓ | ↓ | 8.0 | 1.0 | 0.0 |
| J. Deere 250 Dump | 8/27/13 | ↓ | 8.0 | 1.0 | 0.0 |
| CAT D3 Dozer | 9/3/13 | ↓ | 2.0 | 7.0 | 0.0 |
| J. Deere 250 Dump | 9/17/13 | ↓ | 8.0 | 1.0 | 0.0 |
| P.C. 200 Excavator | ↓ | ↓ | 6.0 | 1.0 | 0.0 |

3. Work performed today:

Continued with work on Wood-barge, continued with solidification of Red Cone sediments. Conducted an assessment of the areas surrounding concrete vault. Collected soil samples from areas north and just beneath the vault.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

Dust monitoring

6. Material received:

Dump-trailer of Quikrete.

7. Submittals Reviewed: *MA*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature]
Sovereign Consulting QC Representative
Date

9/07/13

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 037
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 28 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly sunny
Precipitation: none Temp: 45 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 6.0 | 2.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 | | 6.0 | 2.0 | 0.0 |
| J. Deere 270 Excavator | ↓ | | 6.0 | 2.0 | 0.0 |
| J. Deere 250 Dump | 8/27/13 | | 6.0 | 2.0 | 0.0 |
| CAT D3 Dozer | 9/3/13 | | 2.0 | 6.0 | 0.0 |
| J. Deere 250 Dump | 9/19/13 | | 6.0 | 2.0 | 0.0 |
| PC 200 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |

3. Work performed today:

Completed barge and tested it at Red Cove. Abandoned SUV was discovered in Red Cove decanting bin in AM; → State Police were called to remove vehicle. Continued to excavate Red Cove w/ Amphib excavator/barge/long stake combo and solidification of excavated sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

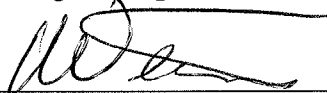
Conducted morning tailgate safety meeting, reviewed JSAs.

Abandoned SUV was discovered on-site in AM (trespass). State police were contacted and proceeded to recover vehicle and remove from site on flat-bed tow-truck.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 9/28/13
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Daily Report No.: 030
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 30 SEP 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Foggy
Precipitation: None Temp: 45° Min. Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 10.0 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | | 8.0 | 2.0 | 0.0 |
| John Deere 270 Excavator | | | 8.0 | 2.0 | 0.0 |
| John Deere 250 Dump | 8/27/13 | | 8.0 | 2.0 | 0.0 |
| CAT D3 Dozer | 9/3/13 → 9/30/13 | | 1.0 | 9.0 | 0.0 |
| John Deere 250 Dump | 9/19/13 | | 8.0 | 2.0 | 0.0 |
| PC 200 Excavator | | | 8.0 | 2.0 | 0.0 |

3. Work performed today:

Continued to excavate Red cone using Ambhib
excavator and long stick excavator. D3 Dozer was
piked up. Solidification of RC sediments continued

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *NA*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

*Conducted morning tailgate safety meeting
and reviewed SSAs*

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] for: RBL 9/30/13

Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 039
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 01 Oct 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 40 Min. Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|------------|------------------------------|
| Bill Borawiec | 10.0 | SouCon | S. Supervisor |
| Laura Simkins | 3.5 | SouCon | Wetlands Specialist |
| Mike Rego | 1.0 | RCTD | Laborer |
| Tony Rego | 1.0 | RCTD | Laborer |
| Aaron Lachance | 10.0 | RCTD | S. Supervisor |
| Max Billiot | 10.0 | BTS | Operator |
| Don Mason | 3.0 | Normandeau | Biologist |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 10.0 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | ↓ | 8.0 | 2.0 | 0.0 |
| JD 270 Excavator | ↓ | ↓ | 8.0 | 2.0 | 0.0 |
| JD 250 Dump | 8/27/13 | ↓ | 8.0 | 2.0 | 0.0 |
| JD 250 Dump | 9/19/13 | ↓ | 8.0 | 2.0 | 0.0 |
| PC 220 Excavator | ↓ | ↓ | 8.0 | 2.0 | 0.0 |
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3. Work performed today:

Continued with excavation and solidification of RC
sediments. Collected 4 waste characterization samples
from Red core → "PC-WC-100113-01 → -04.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

Air monitoring

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

N/A

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted Morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] *10/1/13*

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 040
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 02 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Sunny
Precipitation: none Temp: 50 Min. 40 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|---------------------------------------|
| Bill Borowice | 10.0 | SouCon | S Supervisor |
| Rachel Leary | 4.5 | SouCon | PM |
| Laura Sinkins | 8.5 | SouCon | Env Sci Wetland Specialist |
| Eira Foley | 8.5 | SouCon | Env Sci |
| Mike Rego | 10.0 | RC+D | Laborer |
| Tony Rego | 10.0 | RC+D | Laborer |
| Max Billoir | 10.0 | B+S | Operator |
| Aaron Lachance | 10.0 | RC+D | Operator/Sr. Supervisor |
| Jim Heneburg | 2.0 | RC+D | PM |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnus Generator | 8/8/13 present | Daily | 10.0 | 0.0 | 0.0 |
| CAT322 Excavator | 8/19/13 | ↓ | 8.0 | 0.0 | 0.0 |
| JDere 270 Excavator | ↓ | ↓ | 8.0 | 0.0 | 0.0 |
| JDere 250 Dump | 8/27/13 | ↓ | 8.0 | 2.0 | 0.0 |
| JDere 250 Dump | 8/19/13 | ↓ | 8.0 | 2.0 | 0.0 |
| PC 200 Excavator | ↓ | ↓ | 8.0 | 2.0 | 0.0 |
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3. Work performed today:

Continued to excavate/solidify RC sediments. Sampled RC cells 36, 37, 38, 39, 45, 46, 47, 22, 23, 24, 29, 30, and 31. Amphibious excavator was moved upland awaiting demob.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

Dust Monitoring, post-excavation confirmation samples

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

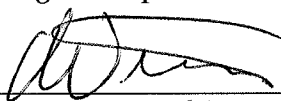
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *10/2/13*

Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 03 Oct 15

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: None Temp: 58.55 Min. 78 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 present | daily | 10.0 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 | | 7.0 | 1.0 | 0.0 |
| Deere 275 Excavator | | | 7.0 | 1.0 | 0.0 |
| Deere 250 pump | 8/27/13 | | 7.0 | 1.0 | 0.0 |
| Deere 250 pump | 8/19/13 | | 7.0 | 1.0 | 0.0 |
| PC 200 Excavator | | | 1.0 | 7.0 | 0.0 |

3. Work performed today:

Continued with solidification of Red Core Sediments.
Collected samples from RC cells 19, 20, 21, 26, 27, 28,
13, 18, 10, 14, 15, and 16.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Dust Monitor

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

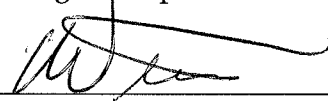
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted Morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *10/3/13*

Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Daily Report No.: 040
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 04 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: lt rain / mostly sunny
Precipitation: _____ Temp: 50 Min. 64 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/3 → present | daily | 8.0 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/3 | | 6.0 | 1.0 | 0.0 |
| John Deere 70 Excavator | ↓ | | 0.0 | 7.0 | 6.0 |
| John Deere 250 Dump | 8/27/3 | | 6.0 | 1.0 | 0.0 |
| John Deere 250 Dump | 9/19/3 | | 0.0 | 7.0 | 6.0 |
| PC 200 Excavator | ↓ | ↓ | 0.0 | 7.0 | 0.0 |
| | | | | | |

3. Work performed today:

Continued to solidify RC sediments. Sampled RC
cells 06, 07, 08, 11, 12, and 17.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Dust Monitoring

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

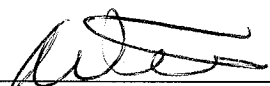
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted Morning tailgate safety meeting and reviewed JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *10/4/13*

Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 07 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Cloudy / 11 rain
Precipitation: yes Temp: 55 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | daily | 9.0 | 0.0 | 0.0 |
| CAT 32 Excavator | 8/19/13 ↓ | ↓ | 7.0 | 1.0 | 0.0 |
| JDeere 270 Excavator | ↓ | ↓ | 7.0 | 1.0 | 0.0 |
| JDeere 250 Dump | 8/27/13 ↓ | ↓ | 7.0 | 1.0 | 0.0 |
| JDeere 250 Dump | 9/1/13 ↓ | ↓ | 0.0 | 8.0 | 0.0 |
| PC200 Excavator | ↓ | ↓ | 0.0 | 8.0 | 0.0 |
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3. Work performed today:

Work resumed w/ solidification of RC sediments.
Samples collected post-ex samples @ Red Cove
cells 01, 02, 03, 04, 05 and 09. RC cells 40
were re-dug and resampled. Collected additional
RC waste char. samples (4).

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

Confirmatory post-ex sampling

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate meeting and reviewed JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date *10/7/13*

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 09/01

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: none Temp: 40 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 8.75 | 0.0 | 0.0 |
| AT 322 Excavator | 8/19/13 | | 7.0 | 1.5 | 0.0 |
| JD 270 Excavator | ↓ | | 7.0 | 0.0 | 0.0 |
| JD 250 Pump | 8/27/13 | | 7.0 | 0.0 | 0.0 |
| JD 250 Dump | 9/19/13 | | 0.0 | 7.0 | 0.0 |
| PG200 Excavator | ↓ ↓ | ↓ | 0.0 | 7.0 | 0.0 |
| | | | | | |

3. Work performed today:

Continued with Solidification of RC sediments.
Re-dug RC cell 41 and dug RC cell 48.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Dst Monitory, collection of confirmatory
post-ex samples

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

W. J. [Signature] 10/0/13
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 045
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 09 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: clear
Precipitation: None Temp: 40 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Barowiec | 8.5 | Soucon | S-Supervisor |
| Brittany Smith | 6.0 | Soucon | Env Sci |
| Erin Foley | 6.0 | Soucon | Env Sci |
| Rachel Leary | 4.5 | Soucon | PM |
| Mike Rego | 8.5 | RCTD | Laborer |
| Tony Rego | 8.5 | RCTD | Laborer |
| Aaron Lachance | 8.5 | RCTD | Sr Supervisor |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|---------------------------|----------------------|------------|------------|--------------|
| Nashua Generator | 8/15/13 → present | Daily | 8.5 | 0.0 | 0.0 |
| CAT322 Excavator | 8/19/13 | ↓ | 7.0 | 1.0 | 0.0 |
| Doere 270 Excavator | ↓ | ↓ | 7.0 | 1.0 | 0.0 |
| Doere 250 Dump | 8/27/13 | ↓ | 7.0 | 0.0 | 0.0 |
| Doere 250 Dump | 9/16/13 | ↓ | 0.0 | 8.0 | 0.0 |
| PC 200 Excavator | ↓ | ↓ | 0.0 | 8.0 | 0.0 |
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3. Work performed today:

Continued with Solidification of Red Core
Sediment, Sampled previously excavated SA 71
cells 19, 20, 21, 22, 23, and 24 at the original 3 ft cut depth.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.) N/A

5. Test performed as required by plans and/or specifications:

Dust Monitoring, confirmatory post
excavation sampling

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

conducted morning teilsak safety meeting and review of JSA.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] *10/9/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 10 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy
Precipitation: none Temp: 40 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Down | 8.0 | 0.0 | 0.0 |
| CAT 320 Excavator | 8/14/13 | ↓ | 9.0 | 1.0 | 0.0 |
| JD 270 Excavator | ↓ | ↓ | 7.0 | 1.0 | 0.0 |
| JD 250 Dump | 8/27/13 | ↓ | 7.0 | 1.0 | 0.0 |
| JD 250 Dump | 9/11/13 | ↓ | 0.0 | 8.0 | 0.0 |
| PC 200 Excavator | ↓ | ↓ | 0.0 | 9.0 | 0.0 |

3. Work performed today:

Work continued with the solidification of RC
specimens. Mike P. from USACE was present in AM
to discuss the placement along shoreline of RC.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSTs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

10/10/13

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 10/11/13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: clear

Precipitation: None Temp: 45 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 8.0 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | | 6.0 | 2.0 | 0.0 |
| J Deere 270 Excavator | ↓ | | 6.0 | 2.0 | 0.0 |
| J Deere 250 Dump | 8/27/13 | | 6.0 | 2.0 | 0.0 |
| J Deere 250 Dump | 9/14/13 | | 0.0 | 8.0 | 0.0 |
| PC200 Excavator | ↓ | ↓ | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Redug SA71 Grid 20 and additional 1-3 feet.
collected post-ex sample from SA71 grid 20.
continued w/ solidification of RC Sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

collection of confirmatory post-excavation
samples

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

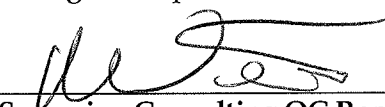
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate
safety meeting and renewed JSTs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 10/11/13
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 048
 Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 15 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy
 Precipitation: none Temp: 50 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borowiec | 8.5 | Soulon | S. Supervisor |
| Aaron Lachance | 8.0 | RCTD | S. Supervisor |
| Mike Rego | 8.0 | RCTD | Laborer |
| Tony Rego | 8.0 | RCTD | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 8.0 | 0.0 | 0.0 |
| CAT322 Excavator | 8/19/13 | ↓ | 8.0 | 8.0 | 0.0 |
| JD 800 Dumper | ↓ | ↓ | 0.0 | 8.0 | 0.0 |
| JD 250 Dumper | 8/27/13 | ↓ | 0.0 | 8.0 | 0.0 |
| JD 250 Dumper | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| PC200 Excavator | ↓ | ↓ | 0.0 | 8.0 | 0.0 |
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3. Work performed today:

Amphibious excavator was broken down (demo) and loaded onto flat bed trailers for shipment offsite. It was later determined that the cabin was loaded onto wrong trailer and was sent back on-site to be loaded onto "low boy" trailer

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 10/15/13
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 16 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: foggy / clouds
Precipitation: none Temp: 40 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 8.0 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| JDeere 270 Excavator | ↓ | | 6.0 | 2.0 | 0.0 |
| JDeere 250 Pump | 8/27/13 | | 6.0 | 2.0 | 0.0 |
| JDeere 250 Pump | 9/4/13 | | 0.0 | 8.0 | 0.0 |
| PC200 Excavator | ↓ → 10/16/13 | | 0.0 | 0.0 | 0.0 |
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3. Work performed today:

Completed demo of amphib excavator, continued with
site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

conducted morning tailgate safety
meeting and review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 10/16/13
Sovereign Consulting QC Representative
Date

Daily Report No.: 050
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 10/17/13

Weather: Sunny
Precipitation: none Temp: 55 Min. 65 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 present | Daily | 8.0 | 0.0 | 0.0 |
| CAT 327 Excavator | 8/19/13 ↓ | ↓ | 6.0 | 0.0 | 0.0 |
| + Deere 275 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| Deere 250 Dump | 8/27/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| Deere 250 Dump | 9/19/13 ↓ | ↓ | 0.0 | 8.0 | 0.0 |
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3. Work performed today:

Improved pond inlet dam with several smaller sandbags. Began drawdown pumps (12" dia) to dewater pond to facilitate vault work.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *10/17/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 000115

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: cloudy
Precipitation: none Temp: 45 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Maximum Generator | 8/15/13 → present | Daily | 8.0 | 0.0 | 0.0 |
| CAT320 Excavator | 8/19/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| John Deere 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| John Deere 250 Dump | 8/27/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| John Deere 250 Dump | 9/19/13 ↓ | ↓ | 0.0 | 8.0 | 0.0 |
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3. Work performed today:

Continued with Site restoration and
equipment demobilization activities

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

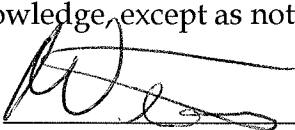
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 10/18/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 052
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 2/OCT/13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: clear
Precipitation: none Temp: 35 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|-------------------|-------|----------|------------------------------|
| Bill Borowiec | 9.25 | Soucon | S. Supervisor |
| Aaron Lachance | 9.25 | RCTD | S. Supervisor |
| Tony Rego | 9.0 | RCTD | Laborer |
| Mike Rego | 9.0 | RCTD | Laborer |
| Miguel Franco | 8.5 | Trident | Subcontractor |
| Gerardo Francisco | 8.5 | Trident | Subcontractor |
| Jose Davila | 8.5 | Trident | Subcontractor |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------|---------------------------|----------------------|------------|------------|--------------|
| Maxim Generator | 8/15/13 → present | Daily | 9.25 | 0.0 | 0.0 |
| CAT 332 Excavator | 8/14/13 ↓ | ↓ | 6.0 | 3.0 | 0.0 |
| JDeere 270 Excavator | ↓ | ↓ | 6.0 | 3.0 | 0.0 |
| JDeere 250 Dump | 8/27/13 ↓ | ↓ | 6.0 | 3.0 | 0.0 |
| JDeere 250 Dump | 9/19/13 ↓ | ↓ | 0.0 | 9.0 | 0.0 |
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3. Work performed today:
the Concrete vault @ STFI was vacated at by Trident Environmental (confined space entry). All pipe penetrations were plugged and the dewatering pumps were turned off. Site restoration continued at Red Cove.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

Trident Env performed airlocks testing prior to entry into vault

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSA.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] 10/21/13
Sovereign Consulting QC Representative
Date

22 OCT 13

Date: 05-01

Weather: partly cloudy
Precipitation: none Temp: 40 Min. 65 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | daily | 9.0 | 0.0 | 0.0 |
| CAT 332 Excavator | 8/19/13 | | 6.0 | 3.0 | 0.0 |
| J Deere 370 Excavator | ↓ | | 6.0 | 3.0 | 0.0 |
| J Deere 250 Pump | 8/27/13 | | 6.0 | 3.0 | 0.0 |
| J Deere 250 Pump | 9/19/13 | | 0.0 | 9.0 | 0.0 |
| Lull | 10/22/13 | ↓ | 0.0 | 9.0 | 0.0 |
| CAT 420E | | ↓ | 0.0 | 9.0 | 0.0 |
| CAT D3 | ↓ | ↓ | 0.0 | 9.0 | 0.0 |

3. Work performed today:

Demobilized the dewatering pump system (ie intake pipes),
backfilled vault @ ST#1 w/ stone and continued
with site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

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7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] *10/22/13*
Sovereign Consulting QC Representative
Date

23 OCT 13

Date: _____

Weather: clear
Precipitation: none Temp: 33 Min. 50 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnus Generator | 8/15/13 → present | Partly | 8.0 | 0.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| John Deere 870 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| John Deere 250 Dump | 8/27/13 | ↓ | 6.0 | 2.0 | 0.0 |
| John Deere 250 Dump | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| Lull | 10/22/13 | ↓ | 6.0 | 2.0 | 0.0 |
| CAT 420E | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| CAT D3 | ↓ | ↓ | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Continued with site restoration at RC and RRRH.
Removed "sandbar" soils at drainage swale inlet
of PSP and continued to demob dewatering pump
assemblies.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *N/A*

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

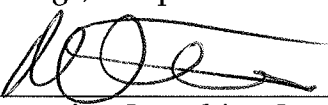
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

*Conducted morning fatigade safety
meeting and reviewed JSP.*

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *10/23/13*
Sovereign Consulting QC Representative
Date

Daily Report No.: 033
Contract No. W912WJ-10-D-003 Task Order No. 005

Date:

Weather: mostly sunny
Precipitation: none Temp: 35 Min. 55 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 320 Excavator | 8/19/13 | | 0.0 | 8.0 | 0.0 |
| JD 270 Excavator | ↓ | | 6.0 | 2.0 | 0.0 |
| JD 250 Dump | 8/27/13 | | 6.0 | 2.0 | 0.0 |
| JD 250 Dump | 9/19/13 | | 0.0 | 8.0 | 0.0 |
| Lull | 10/20/13 | | 6.0 | 2.0 | 0.0 |
| CAT 420E | ↓ | | 6.0 | 2.0 | 0.0 |
| CAT D3 | ↓ | | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Continued w/site restoration @ RRRR/RC
and Moore Dam. Cleared out
jobsite trailer.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.) N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

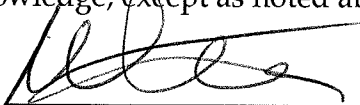
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSS.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 10/24/13

Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 2506113

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: none Temp: 50 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | | 0.0 | 8.0 | 0.0 |
| John Deere 270 Excavator | ↓ | | 6.0 | 2.0 | 0.0 |
| John Deere 250 Dump | 8/27/13 | | 6.0 | 2.0 | 0.0 |
| John Deere 250 Dump | 9/19/13 | | 0.0 | 8.0 | 0.0 |
| Lull | 10/22/13 | | 6.0 | 2.0 | 0.0 |
| CAT 420 E | ↓ | | 6.0 | 2.0 | 0.0 |
| CAT D3 | ↓ | | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Demob of dewatering pumps and associated piping onto flatbed trailers.
Collected stockpile waste characterization sample from RRRH sediments
"SA71-WC-102513-01" and 2 from Red Cove sediments. → Alpha Lab
courier picked up samples. Began to remove stone at
the entrance to RRRH railroad tracks. Removed several small
sandbags from pond inlet dam. Removed Rip-rap from Moore Dam areas.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

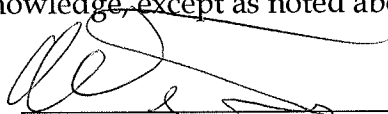
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and
a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date 10/25/13

SOVEREIGN CONSULTING INC. DAILY QUALITY CONTROL REPORT

Daily Report No.: 057
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 28 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly Sunny
Precipitation: None Temp: 30 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borowiec | 8.0 | Sub Con | S. Supervisor |
| Aaron Lachance | 8.0 | RCTD | S. Supervisor |
| Tony Rego | 8.0 | RCTD | Laborer |
| Mike Rego | 8.0 | RCTD | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| J Deere 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| J Deere 250 Dump | 8/27/13 | ↓ | 6.0 | 2.0 | 0.0 |
| J Deere 250 Dump | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| Roll | 10/22/13 | ↓ | 6.0 | 2.0 | 0.0 |
| CAT 420 E | ↓ | ↓ | 2.0 | 6.0 | 0.0 |
| CAT D3 | ↓ | ↓ | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Continued with Site Restoration (stone removal adj to tracks),
and again removed several smaller
sandbags at the pond inlet dam.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning fatigue safety meeting and conducted a JSA review

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] 10/28/13
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Date:

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: none Temp: 25 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 0.0 | 8.5 | 0.0 |
| CAT 322 Excavator | 8/19/13 | | 0.0 | 8.5 | 0.0 |
| Deere 270 Excavator | ↓ | | 0.0 | 8.5 | 0.0 |
| Deere 250 Dump | 8/27/13 | | 0.0 | 8.5 | 0.0 |
| Deere 250 Dump | 9/19/13 | | 0.0 | 8.5 | 0.0 |
| Lull | 10/22/13 | | 0.0 | 8.5 | 0.0 |
| CAT 420E | ↓ | | 0.0 | 8.5 | 0.0 |
| CAT D3 | ↓ | | 0.0 | 8.5 | 0.0 |
| CAT mini-excavator | 10/29/13 ✓ | | 0.0 | 0.5 | 0.0 |

3. Work performed today:

Using a mini-excavator (delivered today) and with help from RR Flaggman, we removed the large outer belt of sand bags from the pond inlet dam along with approx. 85% of the smaller sandbags. A decon pad for the trespasser SUV was constructed @ the ATP.

Additional waste characterization for Red Cone sediments were collected and a lab courier picked them up.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. NA

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted tailgate safety morning meeting
and reviewed applicable JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] 10/29/13
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

30 OCT 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: + rain

Precipitation: 1+ rain Temp: 30 Min. 55 Max. 85

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Maxum Generator | 8/5/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 | | 0.0 | 8.0 | 0.0 |
| Sperre 270 Excavator | ↓ | | 0.0 | 8.0 | 0.0 |
| Sperre 250 dump | 8/27/13 | | 2.0 | 6.0 | 0.0 |
| Sperre 250 dump | 9/19/13 | | 0.0 | 8.0 | 0.0 |
| CAT 420E | 10/22/13 | | 2.0 | 6.0 | 0.0 |
| CAT D3 | ↓ | | 0.0 | 8.0 | 0.0 |
| CAT mini | 10/29/13 ↓ | ↓ | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Manually removed sand from smaller sand bags @ pond in ket dam and filled 1g "supersack". Continued with site restoration activities. the trespass SUV was reviewed @ ATP to be decont'd (see Fri's memo w/ results). The snow-fence perimeter was begun.

removal of the

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. NA

5. Test performed as required by plans and/or specifications:

✓ XRF field screening of swipe samples of the trespass SUV.

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

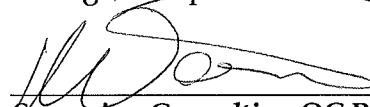
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative

Date

10/30/13

SOVEREIGN CONSULTING INC.

DAILY QUALITY CONTROL REPORT

Daily Report No.:

Date:

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Cloudy, fog

Precipitation: 11 rain Temp: 32 Min. 60 Max. 70

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 | | 0.0 | 8.0 | 0.0 |
| Doze 570 Excavator | ↓ | | 2.0 | 6.0 | 0.0 |
| Doze 250 Dump | 8/27/13 | | 2.0 | 6.0 | 0.0 |
| Doze 250 Dump | 9/19/13 | | 0.0 | 8.0 | 0.0 |
| CAT 4120E | 10/22/13 | | 0.0 | 8.0 | 0.0 |
| CAT D3 | ↓ | | 2.0 | 6.0 | 0.0 |
| CAT mini | 10/22/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |

3. Work performed today:

With help of rr flagman we proceeded to remove 2 large sandbags at pond inlet dam. Left 3 large sandbags in place. Crew on-site to begin fence replacement at Red Cove → all posts set today.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. *None*

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

conducted morning tailgate safety meeting and a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature]
Sovereign Consulting QC Representative
Date

10/31/13

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 01 Nov 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: 11.64 mm Temp: 55° Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 | ↓ | 6.0 | 2.0 | 0.0 |
| JDere 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| JDere 250 Dump | 8/27/13 | ↓ | 6.0 | 2.0 | 0.0 |
| JDere 250 Dump | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT 420 E | 10/22/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT D3 | ↓ | ↓ | 2.0 | 6.0 | 0.0 |
| CAT mini | 10/24/13 ↓ | ↓ | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Continued with site restoration/de mdo. Cleared
Brush/Limb pile @ Red Cove. Continued
to remove/regrade access road to
SHL.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

Grass-seed mix

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

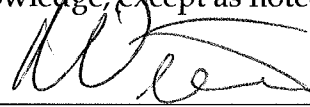
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



11/1/13

Sovereign Consulting QC Representative
Date

**SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT**

Daily Report No.: 062
Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 04 NOV 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Sunny
Precipitation: none Temp: 20 Min. 40 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borowiec | 8.0 | Soucan | Sr Supervisor |
| Aaron Lachance | 8.0 | RCTD | Sr Supervisor |
| Tony Rego | 8.0 | RCTD | Laborer |
| Mike Rego | 8.0 | RCTD | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/13 - present | Daily | 0.0 | 2.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 | ↓ | 0.0 | 8.0 | 0.0 |
| JDeere 70 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| JDeere 250 Dump | 8/27/13 | ↓ | 2.0 | 6.0 | 0.0 |
| JDeere 250 Dump | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT 420 E | 10/20/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT D3 | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| CAT mini | 10/29/13 | ↓ | 6.0 | 2.0 | 0.0 |

3. Work performed today:

With aid of reflector we removed the last remaining large and small sandbags from the pond inlet dam. Grass seed was hand spread at the lower levels of Red Cove and was tracked in w/ D3 Dozers Also continued w/ site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meety
and a review of JHS.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Bill Walas / Dave Roppel from
PANAM said they want the
clean sand from the sand bags adjacent
to their tracks → we will leave
SAND pile where it is.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

W. J. R. 11/4/13
Sovereign Consulting QC Representative
Date

Daily Report No.: 063
Contract No. **W912WJ-10-D-003** Task Order No. **005**

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum generator | 8/15/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 | | 6.0 | 2.0 | 0.0 |
| J Deere 270 Excavator | ↓ | | 0.0 | 8.0 | 0.0 |
| J Deere 250 Dump | 8/27/13 | | 0.0 | 8.0 | 0.0 |
| J Deere 250 Dump | 9/14/13 | | 0.0 | 8.0 | 0.0 |
| CAT 400E | 10/22/13 → 11/5/13 | | 0.0 | 8.0 | 0.0 |
| CAT D3 | ↓ | | 0.0 | 8.0 | 0.0 |
| CAT mini | 10/29/13 → 11/5/13 | | 0.0 | 8.0 | 0.0 |

3. Work performed today:

Continue with site restoration → deployed
Jute Mats at Red Cove, continued
to remove snow fence surrounding PSP.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

N/A

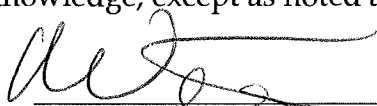
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted fatigue safety meeting and a review of JSAs.
— Laborer Mike Rego cut palm of hand w/ barbed wire
style knife while removing snow fence. Field
First Aid was given to clean wound and cover it
and as per Mike additional medical care is needed.
Mike and Tony (Father and Son) departed site
for medical treatment.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 11/5/13
Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.

DAILY QUALITY CONTROL REPORT

Daily Report No.:

064

Date:

06 NOV 13

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather:

Mostly sunny

Temp: 40 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| Magnum Generator | 8/15/13 → present | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/14/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| JCB 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| Deere 550 Dump | 8/27/13 | ↓ | 0.0 | 8.0 | 0.0 |
| Deere 550 Dump | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT D3 | 10/22/13 ↓ | ↓ | 2.0 | 6.0 | 0.0 |

- Mike Rego return to site & sticks to palm, as per Mike, he
3. Work performed today: 15 ft for work.

Continued with site restoration activities
Deployment of Jute mats and complete removal of
snow-fence around PSP. Began breakdown of
wood-barge.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

Shipment of Jute Mats (25 rolls).

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).


Conducted morning tailgate safety meeting and a review of JSAs.

Injury on 11/5/13 is fit to work

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

~~None~~ Still need ~6" more height to have water flow over moore dam.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 11/6/13
Sovereign Consulting QC Representative
Date

Daily Report No.: 065
Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

1. Contract/Subcontractors and Area of Responsibility

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------|---------------------------|----------------------|------------|------------|--------------|
| Magnum Generator | 8/15/12 → 11/7/13 | Daily | 0.0 | 8.0 | 0.0 |
| CAT 322 Excavator | 8/19/13 → present | ↓ | 2.0 | 4.0 | 2.0 |
| JD 270 Excavator | ↓ | | 2.0 | 4.0 | 2.0 |
| JD 250 Dump | 8/27/13 | | 2.0 | 4.0 | 2.0 |
| JD 250 Dump | 9/19/13 | | 0.0 | 8.0 | 0.0 |
| CAT D3 | 10/22/13 | | ↓ | 2.0 | 6.0 |
| | | | | | |

3. Work performed today:

Continued with the deployment of Jute Mats @ RC-
Proceeded to continue with dismantling of wood
barges. Continued with site restoration/demob.
RCTD decont'd heavy equip on-site today.
The fence replacement at Red Cove was completed
today.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. NONE

5. Test performed as required by plans and/or specifications:

NONE

6. Material received:

NONE

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

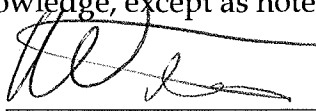
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety
meeting and a review of applicable
JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None Water is now flowing over
Moore Dam. Ran into Ager DPW @ Moore Dam,
they said they removed 2 beaver dams to
fill Grae Pond and as a result
PSP levels raised as well.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 11/7/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 066
 Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 08 Nov 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly clear
 Precipitation: None Temp: 30 Min. 48 Max.

1. Contract/Subcontractors and Area of Responsibility

| Name | Hours | Employer | Location/Description of Work |
|----------------|-------|----------|------------------------------|
| Bill Borowiec | 8.0 | SovCon | S. Supervisor |
| Aaron Lachance | 8.0 | RC&D | S. Supervisor |
| Mark Lachance | 8.0 | RC&D | Operator |
| Tony Rego | 8.0 | RC&D | Laborer |
| Mike Rego | 8.0 | RC&D | Laborer |
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2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|--------------------------|---------------------------|----------------------|------------|------------|--------------|
| CAT 323 Excavator | 8/19/13 → present | Daily | 6.0 | 2.0 | 0.0 |
| John Deere 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| John Deere 550 Dump | 8/27/13 | ↓ | 0.0 | 8.0 | 0.0 |
| John Deere 550 Dump | 9/11/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT 43 | 10/22/13 | ↓ | 4.0 | 4.0 | 0.0 |
| | | | | | |
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3. Work performed today:

Continued with Site Restoration / demo
Continued w/ Jute Mat install and seeding at RC.
Worked Section 1 Stockpiles to dry them out.
Returned EPA boat trailer to RC shoreline.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.)

None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

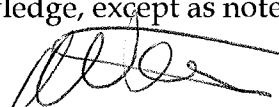
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety
meeting and a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date 11/8/13

11 Nov 13

Date:

Weather: mostly clear
Precipitation: none Temp: 40 Min. 55 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| CAT 322 Excavator | 8/19/13 → present | Daily | 4.0 | 4.0 | 0.0 |
| J Deere 270 Excavator | ↓ | ↓ | 4.0 | 4.0 | 0.0 |
| J Deere 250 pump | 8/27/13 | ↓ | 2.0 | 6.0 | 0.0 |
| J Deere 250 Dump | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT D3 | 10/22/13 ↓ | ↓ | 0.0 | 8.0 | 0.0 |
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3. Work performed today:

Continued w/ site restoration activities and
prepare for T+D. Finished demolishing
wood barge.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

W. J. [Signature] 11/11/13
Sovereign Consulting QC Representative
Date

Weather: 14 rain/snow
Precipitation: little Temp: 07 Min. 50 Max.

3. Work performed today:

Began T+P of Red Cove Sediments
↳ 16 loads out. (8 trucks x 2)
collected waste char samples for RC.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning fairgate safety
meeting and a review of applicable
TSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 11/12/13
Sovereign Consulting QC Representative
Date

Daily Report No.: 001
Contract No. W912WJ-10-D-003 Task Order No. 005

Weather: mostly clear
Precipitation: none Temp: 30 Min. 35 Max.

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CA1321 Excavator | 8/14/13 → present | Daily | 6.0 | 2.0 | 0.0 |
| 5 Doze 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| 5 Doze 250 Dump | 8/27/13 | ↓ | 0.0 | 8.0 | 0.0 |
| 5 Doze 250 Dump | 9/14/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CDT D3 | 10/21/13 | ↓ | 1.0 | 7.0 | 0.0 |
| CA1330 D | 11/12/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| | | | | | |

3. Work performed today:

Continued w/ T+D of RC sediments → 14 loads out
Continued to solidify RC sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

~~None~~ dump trailer load of
Quicklime drying agent

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

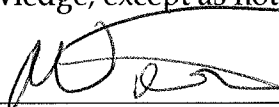
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a JSA review.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

11/13/13

SOVEREIGN CONSULTING INC.

DAILY QUALITY CONTROL REPORT

Daily Report No.: 070

Date: 14 NOV 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: clear
Precipitation: none Temp: 28 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CAT 330 Excavator | 8/19/13 → present | Daily | 6.0 | 2.0 | 0.0 |
| J Deere 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| J Deere 250 Dump | 8/27/13 | ↓ | 0.0 | 8.0 | 0.0 |
| J Deere 250 Dump | 9/19/13 | ↓ | 1.0 | 7.0 | 0.0 |
| CAT D3 | 10/20/13 | ↓ | 1.0 | 7.0 | 0.0 |
| CAT 330 D | 11/18/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| | | | | | |

3. Work performed today:

Continued w/ T+D of RC sediments → 16 loads out
continued w/ solidification of RC sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

11/14/13

SOVEREIGN CONSULTING INC.

DAILY QUALITY CONTROL REPORT

Daily Report No.: 071

Date: 5 Nov 3

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly clear
Precipitation: none Temp: 38 Min. 60 Max.

Precipitation: None Temp: 38 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CAT 322 Excavator | 8/19/13 → present | Down | 6.0 | 2.0 | 0.0 |
| J Deere 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| J Deere 250 Dump | 8/27/13 → 11/15/13 | ↓ | 0.0 | — | — |
| J Deere 250 Dump | 9/19/13 | ↓ | 0.0 | 8.0 | 0.0 |
| CAT D3 | 10/20/13 | ↓ | 1.0 | 7.0 | 0.0 |
| CAT 330 D | 11/10/13 → 11/15/13 | ↓ | 0.0 | — | — |

3. Work performed today:

Ballast sections of barge loaded and removed from
site along w/RC+D J. have 250 Dump (one remains)
and WGF's CAT 330 D.
continued with site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

One dump trailer of quicklime
drying agent.

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

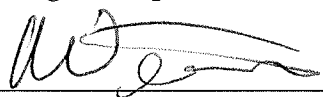
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed applicable JSA's

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

11/15/13

Daily Report No.: 072
Contract No. **W912WJ-10-D-003** Task Order No. **005**

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|---------------------------|----------------------|------------|------------|--------------|
| CAT 330 Excavator | 8/19/13 → present | Daily | 6.0 | 2.0 | 0.0 |
| JDere 270 Excavator | ↓ ↓ | | 6.0 | 2.0 | 0.0 |
| JDere 250 Dump | 9/19/13 → 11/10/13 | | — | — | — |
| CAT D3 | 10/20/13 present | | 1.0 | 7.0 | 0.0 |
| CAT 330 | 11/18/13 ↓ | | — | — | — |
| | | | | | |
| | | | | | |

3. Work performed today:

Continued to solidify RC sediments and
perceive site restoration activities. De mobilized
Stone 250 dump and WLF's CAT 330D
was dropped off in anticipation of T+D
activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety
meeting and a review of applicable
ISAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 11/18/13
Sovereign Consulting QC Representative
Date

Daily Report No.: 073
Contract No. **W912WJ-10-D-003** Task Order No. **005**

Weather: mostly clear
Precipitation: none Temp: 30 Min. 45 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| CAT 330 Excavator | 8/14/13 → present | Daily | 6.0 | 2.0 | 0.0 |
| → Deere 270 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| CAT D3 | 10/20/13 | ↓ | 1.0 | 7.0 | 0.0 |
| CAT 330 D | 11/18/13 | ↓ | 6.0 | 2.0 | 0.0 |
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3. Work performed today:
Continued w/ T + D of RC sediments → 14 loads out.
Continued w/ site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.) N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date

11/19/13

- Weather: clear
Precipitation: none Temp: 35 Min. 40 Max.

3. Work performed today: Continued w/T+D of RC Sediments → 17 loads out
Collected confirmatory base samples from the stockpile
areas (both RRRH + RC).

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None


9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


Sovereign Consulting QC Representative
Date 11/20/13

Daily Report No.: 075
Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

1. Contract/Subcontractors and Area of Responsibility

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CAT 322 Excavator | 8/14/13 → present | Daily | | | |
| Dozer 320 Excavator | ↓ | ↓ | | | 3.0 |
| CAT 43 | 10/22/13 | ↓ | | | |
| CAT 330 D | 11/10/13 | ↓ | | | |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work performed today: Continued w/ T HD of RC Sediments → 26 loads out

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
| | | | |
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8. Offsite surveillance activities, including action taken:

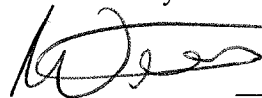
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



For: SAM Dawin

11/21/13

Sovereign Consulting QC Representative
Date

Daily Report No.: 076
Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

1. Contract/Subcontractors and Area of Responsibility

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CAT 322 Excavator | 8/19/13 → present | Daily | | | |
| JD 370 Excavator | ↓ | ↓ | | | |
| CAT D3 | 10/22/13 | ↓ | | | |
| CAT 330 D | 11/10/13 ↓ | ↓ | | | |
| | | | | | |
| | | | | | |
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3. Work performed today: Continued w/ T+D of RC sediments → 25 loads out

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications: None

6. Material received: None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

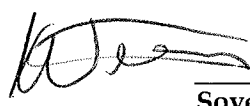
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 Fero SAM Dawh 11/22/13
Sovereign Consulting QC Representative
Date

e: 25 Nov 13

Date.

Weather: clear
Precipitation: none Temp: 80 Min. 35 Max.

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CAT 330 Excavator | 8/14/13 → present | Daily | 6.0 | 2.0 | 0.0 |
| J Dozer 70 Excavator | ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| CAT D3 | 10/22/13 ↓ | ↓ | 1.0 | 7.0 | 0.0 |
| CAT 330D | 11/18/13 ↓ | ↓ | 6.0 | 2.0 | 0.0 |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work performed today:

Continued w/TTD of RC sediments → 6 loads out
Continued w/ site restoration activities.
Collected confirmatory bage samples from
Staging areas → set up course for 11-26-13.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

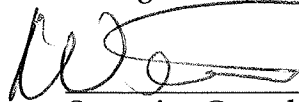
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning fatigue safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



Sovereign Consulting QC Representative
Date

11/25/13

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

Date: 26 Nov 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: 1/2 rain/drizzle
Precipitation: _____ Temp: 30 Min: 40 Max: _____

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|----------------------|---------------------------|----------------------|------------|------------|--------------|
| CAT 320 Excavator | 8/14/13 → present | Daily | 4.0 | 3.0 | 0.0 |
| Hydrex 270 Excavator | ↓ | ↓ | 0.0 | 7.0 | 0.0 |
| CAT D3 | 10/22/13 | ↓ | 1.0 | 6.0 | 0.0 |
| CAT 330D | 11/18/13 → 11/26/13 | ↓ | 4.0 | 3.0 | 0.0 |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work performed today:

Continued w/ T+D of RC Sediments → 5 loads out
Continued w/ site restoration activities

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed:

N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
| | | | |
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8. Offsite surveillance activities, including action taken:

None

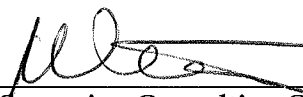
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 11/26/13
Sovereign Consulting QC Representative
Date

Daily Report No.: 079
Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

1. Contract/Subcontractors and Area of Responsibility

[illegible]

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CAT 322 Excavator | 8/19/13 → present | Daily | 4.0 | 4.75 | 0.0 |
| Deere 270 Excavator | ↓ | ↓ | 0.0 | 8.75 | 0.0 |
| CAT 13 | 10/22/13 | ↓ | 2.0 | 6.75 | 0.0 |
| CAT 330D | 12/3/13 ↓ | ↓ | 6.75 | 2.0 | 0.0 |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work performed today: → 24 loads out
Began TFD of RRRH sediments
Continued with site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

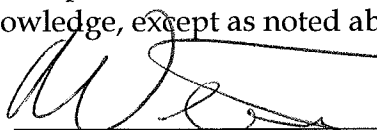
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *12/3/13*
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Date: 04 DEC 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: None Temp: 25 Min. 40 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|-----------------------|---------------------------|----------------------|------------|------------|--------------|
| CAT 330 Excavator | 8/14/13 → present | Daily | 2.0 | 6.5 | 0.0 |
| J. Doer 270 Excavator | ↓ | ↓ | 6.5 | 2.0 | 0.0 |
| CAT D3 | 10/22/13 | ↓ | 2.0 | 6.5 | 0.0 |
| CAT 330 D | 12/3/13 → | ↓ | 6.5 | 2.0 | 0.0 |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work performed today:
Continued with Red Core T+D → 2 loads out → RC completed.
Continued with RRRH T+D → 19 loads out → RRRH complete.
Collected confirmatory base samples from staging areas

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

NONE

6. Material received:

NONE

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety
meeting and a review of
applicable JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

All T+D completed today, we pre-loaded
one load from RRRH to be shipped 12/5/13.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature] 12/4/13
Sovereign Consulting QC Representative
Date

DAILY QUALITY CONTROL REPORT

Contract No. W912WJ-10-D-003 Task Order No. 005

05 DEC 13

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Precipitation: none Temp: 30 Min. 45 Max.

1. Contract/Subcontractors and Area of Responsibility

[illegible]

2. Operating Plant or Equipment. (Not hand tools)

| Equipment | Date of Arrival/Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---------------------|------------------------------|-------------------------|---------------|---------------|-----------------|
| CAT 300 Excavator | 8/19/13 → present | Daily | 4.0 | 4.0 | 0.0 |
| Deere 270 Excavator | ↓ | ↓ | 3.0 | 5.0 | 0.0 |
| CAT D3 | 10/20/13 | ↓ | 1.0 | 7.0 | 0.0 |
| CAT 330D | 03/13 → 12/5/13 | ↓ | 0.5 | 7.5 | 0.0 |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work performed today:

Re-graded RRRH staging areas and RC
areas. Courier on-site to pick up confirmatory
samples from 12/4/13.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

None

7. Submittals Reviewed: N/A

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

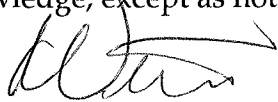
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Final grading cannot be completed due to frozen ground conditions. ~~The~~ 270 Excavator cat 320 and D3 Dozer will be removed on 12/9/13. As per WM, waste profile 491491NH(CRC) is 4,458.69 tons and 101450MA(ERRH) is 1,350.59 tons.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 12/5/13
Sovereign Consulting QC Representative
Date

[illegible]

3. Work performed today:

MOB to site to neutralize decon fluids drum
and perform site inspection. Decon fluid drum is
empty (due to evaporation?). Loaded 2 empty drums to
vehicle and transported off-site. No heavy equip is on-site.
Timber mats remain along with 3 cast-concrete structures on-site.
RCD will remove mats + structures as well as perform finish grading
during spring thaw.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F -
Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-
A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:

None

6. Material received:

N/A

7. Submittals Reviewed: *N/A*

| Submittal No. | Spec/Plan Reference | By Whom | Action |
|---------------|---------------------|---------|--------|
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8. Offsite surveillance activities, including action taken:

None

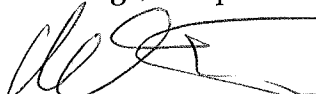
9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted tailgate safety meeting and reviewed JSA's

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

 *12/26/13*
Sovereign Consulting QC Representative
Date

APPENDIX J

Data Validation Reports
(See CD Included Separately)

**Data Quality Evaluation
for
Former Fort Devens Railroad Roundhouse and Plow Shop Pond
Sediment Samples
Collected July through December 2013**

Introduction

Sovereign Consulting, Inc. (Sovereign) collected 236 surface water and sediment samples from the Railroad Roundhouse and Plow Shop Pond, Devens, Massachusetts, on July 30 through December 4, 2013, of which 100 sediment samples required data validation. The samples were analyzed at Alpha Analytical Laboratory in Westborough, Massachusetts, for total metals.

The samples were analyzed for the following site-specific parameter lists:

Plow Shop Pond (Red Cove):

- Total arsenic by SW-846 Method 6020A.

Railroad Roundhouse (Study Area [SA] 71):

- Total antimony by SW-846 Method 6020A.

All validated analytical results, including final data qualifiers, are presented in the attached tables.

The results were evaluated for acceptability in accordance with the laboratory's defined acceptance limits and the criteria presented in the *Quality Assurance Project Plan, for Contaminated Sediment in Plow Shop Pond Area of Contamination (AOC) 72, Former Fort Devens Army Installation, Devens, Massachusetts* (Sovereign, 2013) (QAPP). The data qualification was performed in accordance with the QAPP requirements and the applicable protocols presented in the *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses* (EPA Region I, 1996).

Sample Shipment and Receipt

All samples were delivered directly to the laboratory each day from July 30 through December 4, 2013. The samples arrived at the laboratory with temperatures at or below 6 °C, with eight exceptions, and the laboratory noted that all sample coolers were packed with sufficient quantities of ice in the field. All samples were appropriately preserved in accordance with the requirements presented in Table 1.

All SA71 samples collected on 10/09/13 were received by the laboratory at a temperature above that designated in Table 1. In the professional opinion of the reviewer and in accordance with the Region 1 USEPA data validation guidance for inorganic compounds, the analyte of interest, antimony, is stable above the temperature threshold and no qualification was required.

Holding Times

All samples were extracted and analyzed in accordance with the method and holding time requirements presented in Table 1.

Equipment Blanks

Equipment blanks, also known as rinsate blanks, are samples of analyte-free water that are pumped through or poured over reusable sampling equipment to confirm decontamination efficacy. Equipment blanks are associated with all samples collected at a site using the same type of reusable equipment employed to collect the blank. Equipment blank contamination and the effects thereof are presented in the method-specific discussions below.

Total Metals Analysis

Thirty-eight sediment samples were analyzed for total antimony and sixty-two sediment samples were analyzed for total arsenic using EPA SW-846 Method 6020A. In addition, the laboratory analyzed nineteen field duplicates (associations in the table below) and twenty-five equipment blanks.

| Parent Sample | Field Duplicate |
|------------------------|-----------------|
| SA71-SD-09-001-082613 | FD-082613 |
| SA71-SD-13-001-082813 | FD-082813-01 |
| SA71-SD-16-001-083013 | FD-083013-01 |
| SA71-SD-05-002-090613 | FD-090613-01 |
| SA71-SD-13-002-091013 | FD-091013-01 |
| RC-SD-52-001-091113 | FD-091113-01 |
| RC-SD-42-001-091213 | FD-091213-01 |
| RC-SD-33-001-091313 | FD-091313-01 |
| RC-SD-50-001-091713 | FD-091713-01 |
| RC-SD-41-001-091813 | FD-091813-01 |
| SA71-SD-11-003-091913 | FD-091913-02 |
| RC-SD-40-001-091913 | FD-091913-01 |
| RC-SD-34-001-092513 | FD-092513-01 |
| RC-SD-46-001-100213 | FD-100213-01 |
| RC-SD-28-001-100313 | FD-100313-001 |
| RC-SD-01-001-100713 | FD-100713-01 |
| RC-SD-48-001-100813 | FD-100813-01 |
| SA-71-SD-24-001-100913 | FD-100913-01 |
| SA71-SD-20-002-101113 | FD-101113-01 |

Laboratory Method and Equipment Blank Results: Twenty-five equipment blanks and twenty-two method blanks were associated with the samples analyzed for metals. Target analytes were detected at levels above the respective limit of detection (LOD) in eighteen equipment blanks and five method blanks. Seventeen total metals method blanks were free from contamination.

The method blanks for batches WG635915, WG636412, WG640718, WG641401, and WG642616 had detections above the LOD for arsenic. All arsenic results for the associated samples were detections above the respective action level and no qualification was required.

Equipment blanks EB-091113-02, EB-091313-01, EB-091913-02, EB-092013-01, EB-092313-01, EB-092413-01, and EB-100913-01 were free from contamination. Equipment blanks EB-082613-01, EB-082813-01, EB-082913-01, EB-083013-01, EB-090613-01, EB-091013-01, EB-091113-01, EB-100413-001,

and EB-101113-01 exhibited detections above the LOD for antimony. Equipment blanks EB-091213-01, EB-091713-01, EB-091813-01, EB-091913-01, EB-092513-01, EB-100213-01, EB-100313-01, EB-100413-001, EB-100713-01, and EB-100813-01 exhibited detections above the LOD for arsenic. All arsenic and antimony results for the associated samples were detections above the respective action level and no qualification was required.

Field Duplicate Sample Results: The target metals results for samples SA71-SD-09-001-082613, SA-71-SD-05-002-090613, RC-SD-42-001-091213, RC-SD-33-001-091313, RC-SD-50-001-091713, RC-SD-41-001-091813, RC-SD-34-001-092513, RC-SD-46-001-100213, RC-SD-01-001-100713, RC-SD-48-001-100813, and their associated field duplicates showed acceptable precision for all calculated relative percent difference (RPD) results or acceptable absolute differences for all low-level results.

For samples SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, SA-71-SD-11-003-091913, SA-71-SD-24-001-100913, SA71-SD-20-002-101113, and the associated duplicates, the results yielded high calculated RPDs for antimony. The antimony results for samples FD-082813-01, SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-11-003-091913, FD-091913-02, SA-71-SD-20-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01 were greater than five times the reporting limit (RL) and were qualified J.

For sample SA71-SD-13-002-091013 and the associated field duplicate, the results yielded a high calculated RPD for antimony. However, the parent sample result was a detection less than five times the RL, and the difference between the results for the duplicate pair was greater than the RL. The antimony results for samples FD-091013-01 and SA71-SD-13-002-091013 were detections above the RL and were qualified J.

For samples RC-SD-52-001-091113, RC-SD-40-001-091913, RC-SD-28-001-100313, and the associated duplicates, the results yielded high calculated RPDs for arsenic. The arsenic results for samples FD-091113-01, RC-SD-52-001-091113, RC-SD-40-001-091913, FD-091913-01, RC-SD-28-001-100313, and FD-100313-001 were greater than five times the RL and were qualified J.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results: Twenty-five sets of MS/MSD samples were analyzed for total antimony or arsenic. All recovery and RPD results were within the project acceptance limits for analyses performed on samples SA71-SD-13-002-091013, RC-SD-52-001-091113, RC-SD-42-001-091213, RC-SD-33-001-091313, RC-SD-40-001-091913, RC-SD-60-001-092413, RC-SD-34-001-092513, RC-SD-46-001-100213, RC-WC-100113-01, RC-SD-23-001-100213, RC-SD-28-001-100313, RC-SD-13-001-100313, RC-SD-01-001-100713, and RC-SD-41-002-100813.

The RPD criteria were met for the MS/MSD analyses performed on samples SA71-SD-09-001-082613, SA-71-SD-16-001-083013, SA-71-SD-05-002-090613, SA-71-SD-11-003-091913, and SA-71-SD-24-001-100913, whereas both recoveries were below the lower control limit for target metal antimony. The antimony results for samples SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, SA71-SD-08-001-082613, SA-71-SD-01-001-082913, SA-71-SD-11-001-083013, SA-71-SD-10-001-083013, SA-71-SD-17-001-083013, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-05-002-090613, SA-71-SD-04-002-090613, SA-71-SD-06-002-090613, FD-090613-01, SA-71-SD-15-002-090613, SA-71-SD-14-002-090613, SA-71-SD-11-003-091913, FD-091913-02, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, and FD-100913-01 were detections above the RL and were qualified J.

The recovery and RPD criteria for the MS/MSD analyses performed on sample SA-71-SD-13-001-082813 were above the respective upper control limit for target metal antimony. The antimony results for samples SA-71-SD-07-001-082813, SA-71-SD-06-001-082813, SA-71-SD-05-001-082813, SA-71-SD-04-001-082813, SA-71-SD-15-001-082813, SA-71-SD-14-001-082813, SA-71-SD-13-001-082813, SA-71-SD-03-001-082813, SA-71-SD-12-001-082813, SA-71-SD-02-001-082813, and FD-082813-01 were detections above the RL and were qualified J.

The RPD criteria were met for the MS/MSD analyses performed on sample RC-SD-50-001-091713, whereas both recoveries were above the upper control limit for target metal arsenic. The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were detections above the RL and were qualified J.

The recovery and RPD criteria for the MS/MSD analyses performed on sample RC-SD-41-001-091813 were outside of the respective control limits for target metal arsenic. The arsenic concentration for the parent sample was greater than four times the spiked amount, and therefore, the MS/MSD results were not applicable; no qualification was required.

The recovery and precision criteria were met for the MS/MSD analyses performed on sample RC-SD-49-001-092013, with the exception of one recovery above the upper control limit for arsenic. The arsenic results for samples RC-SD-49-001-092013, RC-SD-53-001-092013, and RC-SD-54-001-092313 were detections above the RL and were qualified J.

For the MS/MSD analyses performed on sample SA71-SD-23-001-100413 one recovery and the RPD were outside the respective control limits for antimony. The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were detections above the RL and were qualified J.

The RPD criteria were met for the MS/MSD analyses performed on sample SA71-SD-20-002-101113, whereas both recoveries were above the upper control limit for target metal antimony. The antimony concentration for the parent sample was greater than four times the spiked amount, and therefore, the MS/MSD results were not applicable; no qualification was required.

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Results: Twenty-two LCS standards were analyzed for total antimony or arsenic, and all yielded recoveries within the project quality control (QC) limits.

Laboratory Duplicate Results: Laboratory duplicate analyses were performed for total antimony and arsenic. All precision results (or absolute differences for low-level concentrations) were within the project acceptance limits for the duplicate analyses performed on samples SA71-SD-09-001-082613, SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, SA-71-SD-05-002-090613, SA71-SD-13-002-091013, RC-SD-52-001-091113, RC-SD-42-001-091213, RC-SD-33-001-091313, SA-71-SD-11-003-091913, RC-SD-40-001-091913, RC-SD-49-001-092013, RC-SD-60-001-092413, RC-SD-34-001-092513, RC-WC-100113-01, RC-SD-23-001-100213, RC-SD-13-001-100313, RC-SD-01-001-100713, and RC-SD-41-002-100813.

For sample RC-SD-50-001-091713, the calculated RPD was above the QAPP control limit and the arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were qualified J.

For samples SA71-SD-23-001-100413, SA-71-SD-24-001-100913, and SA71-SD-20-002-101113, the calculated RPDs were also above the QAPP control limit and the antimony results for samples SA71-SD-23-001-100413, SA71-SD-22-001-100413, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01 were qualified J.

Conclusion

Data packages were reviewed for adherence to acceptable laboratory practices. Based on the elements evaluated (including holding times, blank sample results, duplicate samples, MS/MSD recoveries and precision, and LCS/LCSD recoveries and precision), all data may be reported and used without qualification, except as summarized below.

Total Metals Analysis

- The non-standard Q-qualifiers applied by the laboratory for contaminated ICSAs, initial calibration and/or continuing calibration blanks were removed from the following results: antimony for samples SA-71-SD-07-001-082813, SA-71-SD-06-001-082813, SA-71-SD-05-001-082813, SA-71-SD-04-001-082813, SA-71-SD-15-001-082813, SA-71-SD-14-001-082813, SA-71-SD-13-001-082813, SA-71-SD-03-001-082813, SA-71-SD-12-001-082813, SA-71-SD-02-001-082813, FD-082813-01, SA-71-SD-01-001-082913, SA-71-SD-11-001-083013, SA-71-SD-10-001-083013, SA-71-SD-17-001-083013, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-05-002-090613, SA-71-SD-04-002-090613, SA-71-SD-06-002-090613, FD-090613-01, SA-71-SD-15-002-090613, SA-71-SD-14-002-090613, SA71-SD-01-002-091013, SA71-SD-11-002-091013, SA71-SD-03-002-091013, SA71-SD-13-002-091013, FD-091013-01, SA-71-SD-07-002-091113, SA-71-SD-11-003-091913, and FD-091913-02; and arsenic for samples RC-SD-52-001-091113, FD-091113-01, RC-SD-43-001-091113, RC-SD-51-001-091213, RC-SD-42-001-091213, RC-SD-32-001-091213, FD-091213-01, RC-SD-33-001-091313, FD-091313-01, RC-SD-50-001-091713, RC-SD-55-001-091713, FD-091713-01, RC-SD-41-001-091813, FD-091813-01, RC-SD-40-001-091913, FD-091913-01, RC-SD-49-001-092013, RC-SD-53-001-092013, RC-SD-54-001-092313, RC-SD-60-001-092413, RC-SD-58-001-092413, RC-SD-57-001-092413, RC-SD-56-001-092413, RC-SD-59-001-092413, RC-SD-44-001-092513, RC-SD-35-001-092513, RC-SD-34-001-092513, FD-092513-01, RC-SD-25-001-092513, RC-SD-36-001-100213, RC-SD-37-001-100213, RC-SD-38-001-100213, RC-SD-39-001-100213, RC-SD-45-001-100213, RC-SD-46-001-100213, RC-SD-47-001-100213, FD-100213-01, RC-SD-23-001-100213, RC-SD-24-001-100213, RC-SD-29-001-100213, RC-SD-30-001-100213, RC-SD-31-001-100213, RC-22-001-100213, RC-SD-19-001-100313, RC-SD-20-001-100313, RC-SD-21-001-100313, RC-SD-26-001-100313, RC-SD-27-001-100313, RC-SD-28-001-100313, FD-100313-01, RC-SD-13-001-100313, RC-SD-18-001-100313, RC-SD-10-001-100313, RC-SD-14-001-100313, RC-SD-15-001-100313, RC-SD-16-001-100313, RC-SD-06-001-100413, RC-SD-07-001-100413, RC-SD-08-001-100413, RC-SD-11-001-100413, RC-SD-12-001-100413, RC-SD-17-001-100413, RC-SD-01-001-100713, RC-SD-02-001-100713, RC-SD-03-001-100713, RC-SD-04-001-100713, RC-SD-05-001-100713, FD-100713-01, RC-SD-09-001-100713, RC-SD-40-002-100713, RC-SD-41-002-100813, RC-SD-48-001-100813, and FD-100813-01.
- Due to unacceptable laboratory duplicate precision, the following results were qualified as estimated detections (J): arsenic in samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01; and antimony in samples SA71-SD-23-001-100413, SA71-SD-22-001-100413, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-

SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01.

- On account of one or more low MS /MSD recoveries and/or a low RPD, target metal antimony was qualified as estimated detections (J) in the following samples: SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, SA71-SD-08-001-082613, SA-71-SD-01-001-082913, SA-71-SD-11-001-083013, SA-71-SD-10-001-083013, SA-71-SD-17-001-083013, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-05-002-090613, SA-71-SD-04-002-090613, SA-71-SD-06-002-090613, FD-090613-01, SA-71-SD-15-002-090613, SA-71-SD-14-002-090613, SA-71-SD-11-003-091913, FD-091913-02, SA71-SD-23-001-100413, SA71-SD-22-001-100413, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, and FD-100913-01.
- As a result of one or more high MS/MSD recoveries and/or a high precision value, the following samples were qualified as estimated detections (J): antimony in samples SA-71-SD-07-001-082813, SA-71-SD-06-001-082813, SA-71-SD-05-001-082813, SA-71-SD-04-001-082813, SA-71-SD-15-001-082813, SA-71-SD-14-001-082813, SA-71-SD-13-001-082813, SA-71-SD-03-001-082813, SA-71-SD-12-001-082813, SA-71-SD-02-001-082813, and FD-082813-01; and arsenic in samples RC-SD-50-001-091713, RC-SD-55-001-091713, FD-091713-01, RC-SD-49-001-092013, RC-SD-53-001-092013, and RC-SD-54-001-092313.
- Due to unacceptable field duplicate precision, the following results were qualified as estimated detections (J): antimony in samples FD-082813-01, SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, FD-083013-01, SA71-SD-13-002-091013, FD-091013-01, SA-71-SD-11-003-091913, FD-091913-02, SA-71-SD-24-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01; and arsenic in samples RC-SD-52-001-091113, FD-091113-01, RC-SD-40-001-091913, FD-091913-01, RC-SD-28-001-100313, and FD-100313-001.

TABLE 1
Sample Preparation and Analysis Methods, Containers,
Holding Times, and Preservatives

| Parameter | Analytical Method | Sample Container | Preservation | Holding Time |
|------------------------|-------------------|-------------------------------|---|--------------|
| <i>Aqueous Samples</i> | | | | |
| Metals | SW6020A | 1 x 1-L HDPE | 4 ° ± 2°C, HNO ₃ to pH <2 | 6 Months |
| <i>Solid Samples</i> | | | | |
| Metals | SW6020A | 2 x 8 oz. amber glass bottles | 4 ° ± 2°C | 6 Months |

°C - Degrees Celsius
HNO₃ - Nitric Acid

HDPE - High Density Polyethylene
L - Liter

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1316595 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/02/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/14/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|-----------------------|----------------------|----------------|----------|
| SA71-SD-09-001-082613 | L1316595-01 | WG631830 | Sediment |
| FD-082613 | L1316595-02 | WG631830 | Sediment |
| SA71-SD-18-001-082613 | L1316595-03 | WG631830 | Sediment |
| EB-082613-01 | L1316595-04 | WG631770 | Water QC |
| SA71-SD-08-001-082613 | L1316595-05 | WG631830 | Sediment |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-09-001-082613 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG631830 met all %R control limits established in the QAPP.

The LCS for batch WG631770 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-09-001-082613 from this SDG. The RPD results met the QAPP control limits, whereas the %R results were below the lower control limit (44% MS and 47% MSD). The antimony results for samples SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, and SA71-SD-08-001-082613 were detections above the RL and should be qualified J.

The MS/MSD analyses performed for batch WG631770 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: The antimony results for samples SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, and SA71-SD-08-001-082613 were qualified J.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 08/27/13 for batch WG631830, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 08/27/13 for batch WG631770, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-082613-01, was associated with all samples in this SDG and was contaminated with antimony (0.3600 µg/L), yielding an action level of 0.0594 mg/Kg. All associated antimony results were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-082613 was a field duplicate of sample SA71-SD-09-001-082613. The calculated RPD for antimony (1.3%) was within the QAPP control limits.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|-----------------------|----------|-----------|---------------|-----------------|---------------------|
| SA71-SD-09-001-082613 | Antimony | 2.36 | -- | 2.36 | J |
| FD-082613 | Antimony | 2.39 | -- | 2.39 | J |
| SA71-SD-18-001-082613 | Antimony | 0.702 | -- | 0.702 | J |
| SA71-SD-08-001-082613 | Antimony | 2.81 | -- | 2.81 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1316812 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/02/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/14/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|------------------------|----------------------|----------------|----------|
| SA-71-SD-07-001-082813 | L1316812-01 | WG632504 | Sediment |
| SA-71-SD-06-001-082813 | L1316812-02 | WG632504 | Sediment |
| SA-71-SD-05-001-082813 | L1316812-03 | WG632504 | Sediment |
| SA-71-SD-04-001-082813 | L1316812-04 | WG632504 | Sediment |
| SA-71-SD-15-001-082813 | L1316812-05 | WG632504 | Sediment |
| SA-71-SD-14-001-082813 | L1316812-06 | WG632504 | Sediment |
| SA-71-SD-13-001-082813 | L1316812-07 | WG632504 | Sediment |
| SA-71-SD-03-001-082813 | L1316812-08 | WG632504 | Sediment |
| SA-71-SD-12-001-082813 | L1316812-09 | WG632504 | Sediment |
| SA-71-SD-02-001-082813 | L1316812-10 | WG632504 | Sediment |
| FD-082813-01 | L1316812-11 | WG632504 | Sediment |
| EB-082813-01 | L1316812-12 | WG632505 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, ICB and CCB analyzed for batch WG632504 contained target analyte antimony above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-13-001-082813 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG632504 met all %R control limits established in the QAPP.

The LCS for batch WG632505 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-13-001-082813 from this SDG. The %R and RPD results were above the QAPP upper control limits (565% MS, 190% MSD, and 59% RPD). The antimony results for all sediment samples in this SDG were detections above the RL and should be qualified J.

***Qualification:* The antimony results for all sediment samples in this SDG were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 08/30/13 for batch WG632504, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 08/30/13 for batch WG632505, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-082813-01, was associated with all samples in this SDG and was contaminated with antimony (0.1394 µg/L), yielding an action level of 0.0230 mg/Kg. All associated antimony results were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-082813-01 was a field duplicate of sample SA-71-SD-13-001-082813. The calculated RPD for antimony (23.1%) was above the QAPP control limit and both results should be qualified J.

***Qualification:* The antimony results for samples FD-082813-01 and SA-71-SD-13-001-082813 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-07-001-082813 | Antimony | 6.05 | Q | 6.05 | J |
| SA-71-SD-06-001-082813 | Antimony | 6.37 | Q | 6.37 | J |
| SA-71-SD-05-001-082813 | Antimony | 5.59 | Q | 5.59 | J |
| SA-71-SD-04-001-082813 | Antimony | 5.95 | Q | 5.95 | J |
| SA-71-SD-15-001-082813 | Antimony | 8.28 | Q | 8.28 | J |
| SA-71-SD-14-001-082813 | Antimony | 6.66 | Q | 6.66 | J |
| SA-71-SD-13-001-082813 | Antimony | 10.4 | Q | 10.4 | J |

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-03-001-082813 | Antimony | 5.98 | Q | 5.98 | J |
| SA-71-SD-12-001-082813 | Antimony | 3.23 | Q | 3.23 | J |
| SA-71-SD-02-001-082813 | Antimony | 4.53 | Q | 4.53 | J |
| FD-082813-01 | Antimony | 8.25 | Q | 8.25 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1316932 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/02/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/14/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|------------------------|----------------------|----------------|----------|
| SA-71-SD-01-001-082913 | L1316932-01 | WG633142 | Sediment |
| EB-082913-01 | L1316932-02 | WG633143 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSEA analyzed for batch WG633142 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-01-001-082913 should be removed.

Qualification: The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-01-001-082913 was removed.

Sample Delivery and Condition – Both samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – Both samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-16-001-083013 from SDG L1317005. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG633142 met all %R control limits established in the QAPP.

The LCS for batch WG633143 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-16-001-083013 from SDG L1317005. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (57% MS and 64% MSD). The antimony result for sample SA-71-SD-01-001-082913 was a detection above the RL and should be qualified J.

Qualification: The antimony result for sample SA-71-SD-01-001-082913 was qualified J.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/03/13 for batch WG633142, was associated with sample SA-71-SD-01-001-082913 and was free from contamination.

The method blank, analyzed on 09/03/13 for batch WG633143, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-082913-01, was associated with sample SA-71-SD-01-001-082913 in this SDG and was contaminated with antimony (0.1104 µg/L), yielding an action level of 0.0182 mg/Kg. The antimony result for sample SA-71-SD-01-001-082913 was a detection above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the field sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-01-001-082913 | Antimony | 6.16 | Q | 6.16 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1317005 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/03/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/15/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|------------------------|----------------------|----------------|----------|
| SA-71-SD-11-001-083013 | L1317005-01 | WG633142 | Sediment |
| SA-71-SD-10-001-083013 | L1317005-02 | WG633142 | Sediment |
| SA-71-SD-17-001-083013 | L1317005-03 | WG633142 | Sediment |
| SA-71-SD-16-001-083013 | L1317005-04 | WG633142 | Sediment |
| FD-083013-01 | L1317005-05 | WG633142 | Sediment |
| EB-083013-01 | L1317005-06 | WG633222 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG633142 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-16-001-083013 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG633142 met all %R control limits established in the QAPP.

The LCS for batch WG633222 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-16-001-083013 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (57% MS and 64% MSD). The antimony results for all associated samples were detections above the RL and should be qualified J.

The MS for batch WG633222 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: The antimony results for all sediment samples were qualified J.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/03/13 for batch WG633142, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 09/03/13 for batch WG633222, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-083013-01, was associated with all samples in this SDG and was contaminated with antimony (0.2620 µg/L), yielding an action level of 0.0432 mg/Kg. The antimony results for all samples were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-083013-01 was a field duplicate of sample SA-71-SD-16-001-083013. The calculated RPD for antimony (42.5%) was above the QAPP control limit and both results should be qualified J.

Qualification: The antimony results for samples FD-083013-01 and SA-71-SD-16-001-083013 were qualified J.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-11-001-083013 | Antimony | 10.1 | Q | 10.1 | J |
| SA-71-SD-10-001-083013 | Antimony | 2.89 | Q | 2.89 | J |
| SA-71-SD-17-001-083013 | Antimony | 1.18 | Q | 1.18 | J |
| SA-71-SD-16-001-083013 | Antimony | 2.04 | Q | 2.04 | J |
| FD-083013-01 | Antimony | 3.14 | Q | 3.14 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1317463 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/03/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/15/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|------------------------|----------------------|----------------|----------|
| SA-71-SD-05-002-090613 | L1317463-01 | WG634625 | Sediment |
| SA-71-SD-04-002-090613 | L1317463-02 | WG634625 | Sediment |
| SA-71-SD-06-002-090613 | L1317463-03 | WG634625 | Sediment |
| FD-090613-01 | L1317463-04 | WG634625 | Sediment |
| EB-090613-01 | L1317463-05 | WG634627 | Water QC |
| SA-71-SD-15-002-090613 | L1317463-06 | WG634625 | Sediment |
| SA-71-SD-14-002-090613 | L1317463-07 | WG634625 | Sediment |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSEA analyzed for batch WG634625 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-05-002-090613 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG634627 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG634625 met all %R control limits established in the QAPP.

The LCS for batch WG634627 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-05-002-090613 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (65% MS and 46% MSD). The antimony results for all associated samples were detections above the RL and should be qualified J.

The MS for batch WG634627 was associated with a sample meant for QC purposes only and was not evaluated.

***Qualification:* The antimony results for all sediment samples were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/10/13 for batch WG634625, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 09/10/13 for batch WG634627, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-090613-01, was associated with all samples in this SDG and was contaminated with antimony (0.1054 µg/L), yielding an action level of 0.0174 mg/Kg. The antimony results for all samples were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-090613-01 was a field duplicate of sample SA-71-SD-05-002-090613. The calculated RPD for antimony (12.7%) was within the QAPP control limits.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-05-002-090613 | Antimony | 6.93 | Q | 6.93 | J |
| SA-71-SD-04-002-090613 | Antimony | 7.81 | Q | 7.81 | J |
| SA-71-SD-06-002-090613 | Antimony | 3.08 | Q | 3.08 | J |
| FD-090613-01 | Antimony | 6.10 | Q | 6.10 | J |
| SA-71-SD-15-002-090613 | Antimony | 2.89 | Q | 2.89 | J |
| SA-71-SD-14-002-090613 | Antimony | 7.52 | Q | 7.52 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1317704 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/03/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/15/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|-----------------------|----------------------|----------------|----------|
| SA71-SD-01-002-091013 | L1317704-01 | WG635275 | Sediment |
| SA71-SD-11-002-091013 | L1317704-02 | WG635275 | Sediment |
| SA71-SD-03-002-091013 | L1317704-03 | WG635275 | Sediment |
| SA71-SD-13-002-091013 | L1317704-04 | WG635275 | Sediment |
| FD-091013-01 | L1317704-05 | WG635275 | Sediment |
| EB-091013-01 | L1317704-06 | WG635276 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG635275 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-13-002-091013 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635275 met all %R control limits established in the QAPP.

The LCS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-13-002-091013 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/12/13 for batch WG635275, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 09/12/13 for batch WG635276, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091013-01, was associated with all samples in this SDG and was contaminated with antimony (0.1590 µg/L), yielding an action level of 0.0262 mg/Kg. The antimony results for all samples were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091013-01 was a field duplicate of sample SA71-SD-13-002-091013. The calculated RPD for antimony (40.0%) was above the QAPP control limit; since the parent sample result was less 5x the PQL, the absolute difference between the results was evaluated. The absolute difference was greater than the PQL and both results should be qualified J.

***Qualification:* The antimony results for samples FD-091013-01 and SA71-SD-13-002-091013 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|-----------------------|----------|-----------|---------------|-----------------|---------------------|
| SA71-SD-01-002-091013 | Antimony | 1.56 | Q | 1.56 | -- |
| SA71-SD-11-002-091013 | Antimony | 50.8 | Q | 50.8 | -- |
| SA71-SD-03-002-091013 | Antimony | 0.602 | Q | 0.602 | -- |
| SA71-SD-13-002-091013 | Antimony | 1.62 | Q | 1.62 | J |
| FD-091013-01 | Antimony | 2.43 | Q | 2.43 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1317764 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|------------------------|----------------------|----------------|----------|
| SA-71-SD-07-002-091113 | L1317764-01 | WG635275 | Sediment |
| EB-091113-01 | L1317764-02 | WG635276 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG635275 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-07-002-091113 should be removed.

Qualification: The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-07-002-091113 was removed.

Sample Delivery and Condition – Both samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – Both samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-13-002-091013 from SDG L1317704. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635275 met all %R control limits established in the QAPP.

The LCS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-13-002-091013 from SDG L1317704. All %R and RPD results met the QAPP control limits.

The MS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/12/13 for batch WG635275 was associated with the sediment sample in this SDG and was free from contamination.

The method blank analyzed on 09/12/13 for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091113-01, was associated with the sample in this SDG and was contaminated with antimony (0.1336 µg/L), yielding an action level of 0.0220 mg/Kg. The antimony result for sample SA-71-SD-07-002-091113 was a detection above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – A field duplicate was not associated with the sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-07-002-091113 | Antimony | 0.985 | Q | 0.985 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1317828 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-52-001-091113 | L1317828-01 | WG635581 | Sediment |
| EB-091113-02 | L1317828-02 | WG635583 | Water QC |
| FD-091113-01 | L1317828-03 | WG635581 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG635581 and WG635583 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-52-001-091113 and FD-091113-01 should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-52-001-091113 and FD-091113-01 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-52-001-091113 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635581 met all %R control limits established in the QAPP.

The LCS for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-52-001-091113 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/13/13 for batch WG635581 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/13/13 for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091113-02, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-091113-01 was a field duplicate of sample RC-SD-52-001-091113. The calculated RPD for arsenic (35.5%) was above the QAPP control limit and both results should be qualified J.

***Qualification:* The arsenic results for samples FD-091113-01 and RC-SD-52-001-091113 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-52-001-091113 | Arsenic | 39.5 | Q | 39.5 | J |
| FD-091113-01 | Arsenic | 27.6 | Q | 27.6 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1317993 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-43-001-091113 | L1317993-01 | WG635915 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSCA, initial calibration blank, and continuing calibration blank analyzed for batch WG635915 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifier applied by the laboratory to the arsenic result in sample RC-SD-43-001-091113 should be removed.

Qualification: The non-standard Q-qualifier applied by the laboratory to the arsenic result in sample RC-SD-43-001-091113 was removed.

Sample Delivery and Condition – The sample arrived at the laboratory in acceptable condition and temperature and was properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – The sample was analyzed within the six-month holding time required by the QAPP for preserved solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-42-001-091213 from SDG L1317994. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – One LCS sample was associated with the sample in this SDG. The LCS for batch WG635915 met all %R control limits established in the QAPP.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-42-001-091213 from SDG L1317994. All %R and RPD results met the QAPP control limits.

Qualification: None required.

Method Blank – One method blank was associated with the sample in this SDG. The method blank analyzed on 09/16/13 for batch WG635915 was contaminated with arsenic (0.012 mg/Kg), yielding an

action level of 0.060 mg/Kg. The arsenic result for the associated sample was a detection above the action level and no qualification was required.

Qualification: None required.

Field Blanks – A field blank was not associated with the sample in this SDG.

Qualification: None required.

Field Duplicate – A field duplicate was not associated with the sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-43-001-091113 | Arsenic | 25.3 | Q | 25.3 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1317994 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-51-001-091213 | L1317994-01 | WG635915 | Sediment |
| RC-SD-42-001-091213 | L1317994-02 | WG635915 | Sediment |
| EB-091213-01 | L1317994-03 | WG635916 | Water QC |
| RC-SD-32-001-091213 | L1317994-04 | WG635915 | Sediment |
| FD-091213-01 | L1317994-05 | WG635915 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG635915 and WG635916 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-51-001-091213, RC-SD-42-001-091213, RC-SD-32-001-091213, and FD-091213-01 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-42-001-091213 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635915 met all %R control limits established in the QAPP.

The LCS for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-42-001-091213 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/16/13 for batch WG635915 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.012 mg/Kg), yielding an action level of 0.060 mg/Kg. The arsenic results for the associated samples were detections above the action level and no qualification was required.

The method blank analyzed on 09/16/13 for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091213-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1361 µg/L), yielding an action level of 0.0225 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091213-01 was a field duplicate of sample RC-SD-42-001-091213. The calculated RPD for arsenic (5.8%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-51-001-091213 | Arsenic | 183 | Q | 183 | -- |
| RC-SD-42-001-091213 | Arsenic | 229 | Q | 229 | -- |
| RC-SD-32-001-091213 | Arsenic | 35.6 | Q | 35.6 | -- |
| FD-091213-01 | Arsenic | 216 | Q | 216 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318098 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-33-001-091313 | L1318098-01 | WG636412 | Sediment |
| FD-091313-01 | L1318098-02 | WG636412 | Sediment |
| EB-091313-01 | L1318098-03 | WG636416 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG636412 and WG636416 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-33-001-091313 and FD-091313-01 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-33-001-091313 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG636416 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG636412 met all %R control limits established in the QAPP.

The LCS for batch WG636416 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-33-001-091313 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/17/13 for batch WG636412 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.012 mg/Kg), yielding an action level of 0.060 mg/Kg. The arsenic results for the associated samples were detections above the action level and no qualification was required.

The method blank analyzed on 09/17/13 for batch WG636416 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091313-01, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-091313-01 was a field duplicate of sample RC-SD-33-001-091313. The calculated RPD for arsenic (4.9%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-33-001-091313 | Arsenic | 664 | Q | 664 | -- |
| FD-091313-01 | Arsenic | 632 | Q | 632 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318326 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-50-001-091713 | L1318326-01 | WG637136 | Sediment |
| RC-SD-55-001-091713 | L1318326-02 | WG637136 | Sediment |
| FD-091713-01 | L1318326-03 | WG637136 | Sediment |
| EB-091713-01 | L1318326-04 | WG637138 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. One discrepancy was noted. The laboratory failed to discuss the RPD exceedance for the laboratory duplicate. In addition, it was stated in the narrative that the ICSCA, initial calibration blank, and continuing calibration blank analyzed for batches WG637136 and WG637138 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-50-001-091713 from this SDG. The RPD was above the QAPP control limit at 35%. The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were detections above the RL and should be qualified J.

The duplicate analysis for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were qualified J.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637136 met all %R control limits established in the QAPP.

The LCS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-50-001-091713 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were above the upper control limit (248% MS and 266% MSD). The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were detections above the RL and should be qualified J.

MS/MSD analyses were also performed for target metal arsenic on sample RC-SD-41-001-091813 from SDG L1318417. The %R and RPD results were outside the QAPP control limits (0% MS, 185% MSD, and 25% RPD). The arsenic concentration for the parent sample was >4x the spiked amount, and therefore, the results were not applicable; no qualification was required.

The MS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

***Qualification:* The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/19/13 for batch WG637136 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/19/13 for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091713-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1975 µg/L), yielding an action level of 0.0326 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091713-01 was a field duplicate of sample RC-SD-50-001-091713. The calculated RPD for arsenic (6.3%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-50-001-091713 | Arsenic | 510 | Q | 510 | J |
| RC-SD-55-001-091713 | Arsenic | 29.2 | Q | 29.2 | J |

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|--------------|---------|-----------|---------------|-----------------|---------------------|
| FD-091713-01 | Arsenic | 543 | Q | 543 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318417 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-41-001-091813 | L1318417-01 | WG637136 | Sediment |
| FD-091813-01 | L1318417-02 | WG637136 | Sediment |
| EB-091813-01 | L1318417-03 | WG637138 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. One discrepancy was noted. The laboratory failed to discuss the RPD exceedance for the laboratory duplicate. In addition, it was stated in the narrative that the ICSCA, initial calibration blank, and continuing calibration blank analyzed for batches WG637136 and WG637138 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-41-001-091813 and FD-091813-01 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-50-001-091713 from SDG L1318326. The RPD was above the QAPP control limit at 35%. Because the parent sample was not collected from the same location as the samples in this SDG, the result was not applicable and no qualification was required.

The duplicate analysis for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637136 met all %R control limits established in the QAPP.

The LCS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-41-001-091813 from this SDG. The %R and RPD results were outside the QAPP control limits (0% MS, 185% MSD, and 25% RPD). The arsenic concentration for the parent sample was >4x the spiked amount, and therefore, the results were not applicable; no qualification was required.

MS/MSD analyses were also performed for target metal arsenic on sample RC-SD-50-001-091713 from SDG L1318326. The RPD result met the QAPP control limits, whereas the %R results were above the upper control limit (248% MS and 266% MSD). Because the parent sample was not collected from the same location as the samples in this SDG, the results were not applicable and no qualification was required.

The MS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/19/13 for batch WG637136 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/19/13 for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091813-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1371 µg/L), yielding an action level of 0.0226 mg/Kg. The arsenic results for both samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091813-01 was a field duplicate of sample RC-SD-41-001-091813. The calculated RPD for arsenic (14.8%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-41-001-091813 | Arsenic | 2910 | Q | 2910 | -- |
| FD-091813-01 | Arsenic | 2510 | Q | 2510 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318526 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|------------------------|----------------------|----------------|----------|
| SA-71-SD-11-003-091913 | L1318526-01 | WG637817 | Sediment |
| FD-091913-02 | L1318526-02 | WG637817 | Sediment |
| EB-091913-02 | L1318526-03 | WG637815 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA and/or continuing calibration blanks analyzed for batches WG637815 and WG637817 contained target analyte antimony above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the antimony results in samples SA-71-SD-11-003-091913 and FD-091913-02 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-11-003-091913 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637817 met all %R control limits established in the QAPP.

The LCS for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-11-003-091913 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (55% MS and 38% MSD). The antimony results for samples SA-71-SD-11-003-091913 and FD-091913-02 were detections above the RL and should be qualified J.

The MS for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: The antimony results for samples FD-091913-02 and SA-71-SD-11-003-091913 were qualified J.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/23/13 for batch WG637817 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/23/13 for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091913-02, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-091913-02 was a field duplicate of sample SA-71-SD-11-003-091913. The calculated RPD for antimony (25.4%) was above the QAPP control limit and both results should be qualified J.

Qualification: The antimony results for samples FD-091913-02 and SA-71-SD-11-003-091913 were qualified J.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-11-003-091913 | Antimony | 5.81 | Q | 5.81 | J |
| FD-091913-02 | Antimony | 4.50 | Q | 4.50 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318528 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-40-001-091913 | L1318528-01 | WG637823 | Sediment |
| FD-091913-01 | L1318528-02 | WG637823 | Sediment |
| EB-091913-01 | L1318528-03 | WG637815 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA and continuing calibration blanks analyzed for batches WG637815 and WG637823 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-40-001-091913 and FD-091913-01 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-40-001-091913 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637823 met all %R control limits established in the QAPP.

The LCS for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-40-001-091913 from this SDG. All %R and RPD results met the QAPP control limits.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/23/13 for batch WG637823 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/23/13 for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091913-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1277 µg/L), yielding an action level of 0.0211 mg/Kg. The arsenic results for both samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091913-01 was a field duplicate of sample RC-SD-40-001-091913. The calculated RPD for arsenic (25.1%) was above the QAPP control limit and both results should be qualified J.

Qualification: The arsenic results for samples FD-091913-01 and RC-SD-40-001-091913 were qualified J.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-40-001-091913 | Arsenic | 2090 | Q | 2090 | J |
| FD-091913-01 | Arsenic | 2690 | Q | 2690 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318731 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-49-001-092013 | L1318731-01 | WG638351 | Sediment |
| EB-092013-01 | L1318731-02 | WG638352 | Water QC |
| RC-SD-53-001-092013 | L1318731-03 | WG638351 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and/or continuing calibration blanks analyzed for batches WG638351 and WG638352 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-49-001-092013 and RC-SD-53-001-092013 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-49-001-092013 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG638351 met all %R control limits established in the QAPP.

The LCS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-49-001-092013 from this SDG. The %R and RPD results met the QAPP control limits with the exception of one high recovery (141% MSD). The arsenic results for samples RC-SD-49-001-092013 and RC-SD-53-001-092013 were detections above the PQL and should be qualified J.

The MS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: The arsenic results for samples RC-SD-49-001-092013 and RC-SD-53-001-092013 were qualified J.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/24/13 for batch WG638351 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/24/13 for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092013-01, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-49-001-092013 | Arsenic | 274 | Q | 274 | J |
| RC-SD-53-001-092013 | Arsenic | 6.81 | Q | 6.81 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318780 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/16/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-54-001-092313 | L1318780-01 | WG638351 | Sediment |
| EB-092313-01 | L1318780-02 | WG638352 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and/or continuing calibration blanks analyzed for batches WG638351 and WG638352 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifier applied by the laboratory to the arsenic result for sample RC-SD-54-001-092313 should be removed.

Qualification: The non-standard Q-qualifier applied by the laboratory to the arsenic result in sample RC-SD-54-001-092313 was removed.

Sample Delivery and Condition – Both samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – Both samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-49-001-092013 from SDG L1318731. The RPD met the QAPP control limit.

The duplicate analysis for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG638351 met all %R control limits established in the QAPP.

The LCS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-49-001-092013 from SDG L1318731. The %R and RPD results met the QAPP control

limits with the exception of one high recovery (141% MSD). The arsenic result for sample RC-SD-54-001-092313 was a detection above the PQL and should be qualified J.

The MS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: The arsenic result for sample RC-SD-54-001-092313 was qualified J.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/24/13 for batch WG638351 was associated with the sediment sample in this SDG and was free from contamination.

The method blank analyzed on 09/24/13 for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092313-01, was associated with the sample in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-54-001-092313 | Arsenic | 31.7 | Q | 31.7 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1318875 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/18/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/09/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-60-001-092413 | L1318875-01 | WG638976 | Sediment |
| RC-SD-58-001-092413 | L1318875-02 | WG638976 | Sediment |
| RC-SD-57-001-092413 | L1318875-03 | WG638976 | Sediment |
| RC-SD-56-001-092413 | L1318875-04 | WG638976 | Sediment |
| RC-SD-59-001-092413 | L1318875-05 | WG638976 | Sediment |
| EB-092413-01 | L1318875-06 | WG638977 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batches WG638976 and WG638977 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-60-001-092413 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG638976 met all %R control limits established in the QAPP.

The LCS for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-60-001-092413 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/26/13 for batch WG638976 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/26/13 for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092413-01, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-60-001-092413 | Arsenic | 12.5 | Q | 12.5 | -- |
| RC-SD-58-001-092413 | Arsenic | 32.9 | Q | 32.9 | -- |
| RC-SD-57-001-092413 | Arsenic | 22.4 | Q | 22.4 | -- |
| RC-SD-56-001-092413 | Arsenic | 5.56 | Q | 5.56 | -- |
| RC-SD-59-001-092413 | Arsenic | 7.39 | Q | 7.39 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1319010 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/18/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/09/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-44-001-092513 | L1319010-01 | WG639326 | Sediment |
| RC-SD-35-001-092513 | L1319010-02 | WG639326 | Sediment |
| RC-SD-34-001-092513 | L1319010-03 | WG639326 | Sediment |
| FD-092513-01 | L1319010-04 | WG639326 | Sediment |
| EB-092513-01 | L1319010-05 | WG639329 | Water QC |
| RC-SD-25-001-092513 | L1319010-06 | WG639326 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSCA, initial calibration and/or continuing calibration blanks analyzed for batches WG639326 and WG639329 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-34-001-092513 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG639326 met all %R control limits established in the QAPP.

The LCS for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-34-001-092513 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/27/13 for batch WG639326 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/27/13 for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092513-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1279 µg/L), yielding an action level of 0.0211 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-092513-01 was a field duplicate of sample RC-SD-34-001-092513. The calculated RPD for arsenic (2.8%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-44-001-092513 | Arsenic | 197 | Q | 197 | -- |
| RC-SD-35-001-092513 | Arsenic | 251 | Q | 251 | -- |
| RC-SD-34-001-092513 | Arsenic | 506 | Q | 506 | -- |
| FD-092513-01 | Arsenic | 492 | Q | 492 | -- |
| RC-SD-25-001-092513 | Arsenic | 130 | Q | 130 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1319573 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/21/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/10/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-36-001-100213 | L1319573-01 | WG640718 | Sediment |
| RC-SD-37-001-100213 | L1319573-02 | WG640718 | Sediment |
| RC-SD-38-001-100213 | L1319573-03 | WG640718 | Sediment |
| RC-SD-39-001-100213 | L1319573-04 | WG640718 | Sediment |
| RC-SD-45-001-100213 | L1319573-05 | WG640718 | Sediment |
| RC-SD-46-001-100213 | L1319573-06 | WG640718 | Sediment |
| RC-SD-47-001-100213 | L1319573-07 | WG640718 | Sediment |
| FD-100213-01 | L1319573-08 | WG640718 | Sediment |
| EB-100213-01 | L1319573-09 | WG640759 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSCA, initial calibration and continuing calibration blanks analyzed for batches WG640718 and WG640759 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-WC-100113-01 from SDG L1319527. The RPD met the QAPP control limit.

The duplicate analysis for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG640718 met all %R control limits established in the QAPP.

The LCS for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-46-001-100213 from this SDG. All %R and RPD results met the QAPP control limits.

MS/MSD analyses were also performed for target metal arsenic on sample RC-WC-100113-01 from SDG L1319527. All %R and RPD results met the QAPP control limits.

The MS for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/03/13 for batch WG640718 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.012 mg/Kg), yielding an action level of 0.060 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

The method blank analyzed on 10/03/13 for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100213-01, was associated with the samples in this SDG and was contaminated with arsenic (0.2095 µg/L), yielding an action level of 0.0346 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100213-01 was a field duplicate of sample RC-SD-46-001-100213. The calculated RPD for arsenic (4.4%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-36-001-100213 | Arsenic | 195 | Q | 195 | -- |
| RC-SD-37-001-100213 | Arsenic | 291 | Q | 291 | -- |
| RC-SD-38-001-100213 | Arsenic | 93.9 | Q | 93.9 | -- |

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-39-001-100213 | Arsenic | 110 | Q | 110 | -- |
| RC-SD-45-001-100213 | Arsenic | 23.7 | Q | 23.7 | -- |
| RC-SD-46-001-100213 | Arsenic | 156 | Q | 156 | -- |
| RC-SD-47-001-100213 | Arsenic | 127 | Q | 127 | -- |
| FD-100213-01 | Arsenic | 163 | Q | 163 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1319660 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/21/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/10/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-23-001-100213 | L1319660-01 | WG641081 | Sediment |
| RC-SD-24-001-100213 | L1319660-02 | WG641081 | Sediment |
| RC-SD-29-001-100213 | L1319660-03 | WG641081 | Sediment |
| RC-SD-30-001-100213 | L1319660-04 | WG641081 | Sediment |
| RC-SD-31-001-100213 | L1319660-05 | WG641081 | Sediment |
| RC-22-001-100213 | L1319660-06 | WG641081 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSCA, initial calibration and continuing calibration blanks analyzed for batch WG641081 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-23-001-100213 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – One LCS sample was associated with all samples in this SDG. The LCS for batch WG641081 met all %R control limits established in the QAPP.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-23-001-100213 from this SDG. All %R and RPD results met the QAPP control limits.

Qualification: None required.

Method Blank – One method blank was associated with all samples in this SDG. The method blank analyzed on 10/04/13 for batch WG641081 was free from contamination.

Qualification: None required.

Field Blanks – An equipment blank was not submitted with the samples in this SDG.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-23-001-100213 | Arsenic | 120 | Q | 120 | -- |
| RC-SD-24-001-100213 | Arsenic | 73.8 | Q | 73.8 | -- |
| RC-SD-29-001-100213 | Arsenic | 157 | Q | 157 | -- |
| RC-SD-30-001-100213 | Arsenic | 133 | Q | 133 | -- |
| RC-SD-31-001-100213 | Arsenic | 95.2 | Q | 95.2 | -- |
| RC-22-001-100213 | Arsenic | 157 | Q | 157 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1319709 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/23/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/11/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-19-001-100313 | L1319709-01 | WG641081 | Sediment |
| RC-SD-20-001-100313 | L1319709-02 | WG641081 | Sediment |
| RC-SD-21-001-100313 | L1319709-03 | WG641081 | Sediment |
| RC-SD-26-001-100313 | L1319709-04 | WG641081 | Sediment |
| RC-SD-27-001-100313 | L1319709-05 | WG641081 | Sediment |
| RC-SD-28-001-100313 | L1319709-06 | WG641081 | Sediment |
| FD-100313-001 | L1319709-07 | WG641081 | Sediment |
| EB-100313-01 | L1319709-08 | WG641108 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSCA, initial calibration and continuing calibration blanks analyzed for batches WG641081 and WG641108 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-23-001-100213 from SDG L1319660. The RPD met the QAPP control limit.

The duplicate analysis for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG641081 met all %R control limits established in the QAPP.

The LCS for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-28-001-100313 from this SDG. All %R and RPD results met the QAPP control limits.

MS/MSD analyses were also performed for target metal arsenic on sample RC-SD-23-001-100213 from SDG L1319660. All %R and RPD results met the QAPP control limits.

The MS for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/04/13 for batch WG641081 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/04/13 for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100313-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1211 µg/L), yielding an action level of 0.0200 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100313-001 was a field duplicate of sample RC-SD-28-001-100313. The calculated RPD for arsenic (45.9%) was above the QAPP control limit and both results should be qualified J.

***Qualification:* The arsenic results for samples FD-100313-001 and RC-SD-28-001-100313 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-19-001-100313 | Arsenic | 117 | Q | 117 | -- |
| RC-SD-20-001-100313 | Arsenic | 185 | Q | 185 | -- |
| RC-SD-21-001-100313 | Arsenic | 185 | Q | 185 | -- |
| RC-SD-26-001-100313 | Arsenic | 164 | Q | 164 | -- |
| RC-SD-27-001-100313 | Arsenic | 657 | Q | 657 | -- |

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-28-001-100313 | Arsenic | 104 | Q | 104 | J |
| FD-100313-001 | Arsenic | 166 | Q | 166 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1319783 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/23/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/11/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-13-001-100313 | L1319783-01 | WG641401 | Sediment |
| RC-SD-18-001-100313 | L1319783-02 | WG641401 | Sediment |
| RC-SD-10-001-100313 | L1319783-03 | WG641401 | Sediment |
| RC-SD-14-001-100313 | L1319783-04 | WG641401 | Sediment |
| RC-SD-15-001-100313 | L1319783-05 | WG641401 | Sediment |
| RC-SD-16-001-100313 | L1319783-06 | WG641401 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSCA, initial calibration and continuing calibration blanks analyzed for batch WG641401 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-13-001-100313 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – One LCS sample was associated with all samples in this SDG. The LCS for batch WG641401 met all %R control limits established in the QAPP.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-13-001-100313 from this SDG. All %R and RPD results met the QAPP control limits.

Qualification: None required.

Method Blank – One method blank was associated with all samples in this SDG. The method blank analyzed on 10/07/13 for batch WG641401 was contaminated with arsenic (0.023 mg/Kg), yielding an action level of 0.115 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Blanks – An equipment blank was not submitted with the samples in this SDG.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-13-001-100313 | Arsenic | 221 | Q | 221 | -- |
| RC-SD-18-001-100313 | Arsenic | 291 | Q | 291 | -- |
| RC-SD-10-001-100313 | Arsenic | 449 | Q | 449 | -- |
| RC-SD-14-001-100313 | Arsenic | 244 | Q | 244 | -- |
| RC-SD-15-001-100313 | Arsenic | 101 | Q | 101 | -- |
| RC-SD-16-001-100313 | Arsenic | 232 | Q | 232 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1319814 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/23/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/11/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------------|----------------------|-----------------------|----------|
| RC-SD-06-001-100413 (1) | L1319814-01 | WG641401 | Sediment |
| RC-SD-07-001-100413 (1) | L1319814-02 | WG641401 | Sediment |
| RC-SD-08-001-100413 (1) | L1319814-03 | WG641401 | Sediment |
| RC-SD-11-001-100413 (1) | L1319814-04 | WG641401 | Sediment |
| RC-SD-12-001-100413 (1) | L1319814-05 | WG641401 | Sediment |
| RC-SD-17-001-100413 (1) | L1319814-06 | WG641401 | Sediment |
| EB-100413-001 (2) | L1319814-07 | WG641398; WG641399 | Water QC |
| SA71-SD-23-001-100413 (3) | L1319814-08 | WG641402 | Sediment |
| SA71-SD-22-001-100413 (3) | L1319814-09 | WG641402 | Sediment |

- (1) Sample analyzed for total arsenic only.
(2) Sample analyzed for total arsenic and antimony only.
(3) Sample analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSCA, initial calibration and continuing calibration blanks analyzed for batches WG641401 and WG641398 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples in batch WG641401 should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples in batch WG641401 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-13-001-100313 from SDG L1319783. The RPD met the QAPP control limit.

One lab duplicate analysis was also performed for antimony on sample SA71-SD-23-001-100413 from this SDG. The RPD was above the QAPP upper control limit at 101%. The antimony results for samples

SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were detections above the PQL and should be qualified J.

The duplicate analyses for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were qualified J.

Laboratory Control Sample – Four LCS samples were associated with the samples in this SDG. The LCSs for batches WG641401 and WG641402 met all %R control limits established in the QAPP.

The LCSs for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-13-001-100313 from SDG L1319783. All %R and RPD results met the QAPP control limits.

MS/MSD analyses were performed for target metal antimony on sample SA71-SD-23-001-100413 from this SDG. One %R result met the QAPP control limits, whereas the RPD and remaining %R result were outside the control limits (34% MSD and 21% RPD). The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were detections above the PQL and should be qualified J.

The MSs for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were qualified J.

Method Blank – Four method blanks were associated with the samples in this SDG. The method blank analyzed on 10/07/13 for batch WG641401 was contaminated with arsenic (0.023 mg/Kg), yielding an action level of 0.115 mg/Kg. All arsenic results for the samples in this SDG were detections above the action level and no qualification was required.

The method blank analyzed on 10/07/13 for batch WG641402 was free from contamination.

The method blanks analyzed on 10/07/13 for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100413-001, was associated with the samples in this SDG and was contaminated with antimony (0.1185 µg/L) and arsenic (0.1907 µg/L), yielding action levels of 0.0196 mg/Kg and 0.0315 mg/Kg, respectively. The antimony and arsenic results for all samples in this SDG were detections above the corresponding action level and no qualification was required.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|-----------------------|----------|-----------|---------------|-----------------|---------------------|
| RC-SD-06-001-100413 | Arsenic | 399 | Q | 399 | -- |
| RC-SD-07-001-100413 | Arsenic | 128 | Q | 128 | -- |
| RC-SD-08-001-100413 | Arsenic | 98.0 | Q | 98.0 | -- |
| RC-SD-11-001-100413 | Arsenic | 65.2 | Q | 65.2 | -- |
| RC-SD-12-001-100413 | Arsenic | 78.3 | Q | 78.3 | -- |
| RC-SD-17-001-100413 | Arsenic | 113 | Q | 113 | -- |
| SA71-SD-23-001-100413 | Antimony | 2.64 | Q | 2.64 | J |
| SA71-SD-22-001-100413 | Antimony | 5.98 | Q | 5.98 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1319995 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/24/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-01-001-100713 | L1319995-01 | WG641886 | Sediment |
| RC-SD-02-001-100713 | L1319995-02 | WG641886 | Sediment |
| RC-SD-03-001-100713 | L1319995-03 | WG641886 | Sediment |
| RC-SD-04-001-100713 | L1319995-04 | WG641886 | Sediment |
| RC-SD-05-001-100713 | L1319995-05 | WG641886 | Sediment |
| FD-100713-01 | L1319995-06 | WG641886 | Sediment |
| EB-100713-01 | L1319995-07 | WG641884 | Water QC |
| RC-SD-09-001-100713 | L1319995-08 | WG641886 | Sediment |
| RC-SD-40-002-100713 | L1319995-09 | WG641886 | Sediment |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSEA, initial calibration and continuing calibration blanks analyzed for batches WG641884 and WG641886 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-01-001-100713 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG641886 met all %R control limits established in the QAPP.

The LCS for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-01-001-100713 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/08/13 for batch WG641886 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/08/13 for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100713-01, was associated with all samples in this SDG and was contaminated with arsenic (0.0909 µg/L), yielding an action level of 0.0150 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100713-01 was a field duplicate of sample RC-SD-01-001-100713. The calculated RPD for arsenic (6.5%) was below the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-01-001-100713 | Arsenic | 174 | Q | 174 | -- |
| RC-SD-02-001-100713 | Arsenic | 177 | Q | 177 | -- |
| RC-SD-03-001-100713 | Arsenic | 302 | Q | 302 | -- |
| RC-SD-04-001-100713 | Arsenic | 163 | Q | 163 | -- |
| RC-SD-05-001-100713 | Arsenic | 86.4 | Q | 86.4 | -- |
| FD-100713-01 | Arsenic | 163 | Q | 163 | -- |
| RC-SD-09-001-100713 | Arsenic | 89.2 | Q | 89.2 | -- |

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-40-002-100713 | Arsenic | 58.6 | Q | 58.6 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1320115 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/24/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|---------------------|----------------------|----------------|----------|
| RC-SD-41-002-100813 | L1320115-01 | WG642616 | Sediment |
| RC-SD-48-001-100813 | L1320115-02 | WG642616 | Sediment |
| FD-100813-01 | L1320115-03 | WG642616 | Sediment |
| EB-100813-01 | L1320115-04 | WG642366 | Water QC |

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batch WG642616 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all associated samples should be removed.

Qualification: The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-41-002-100813, RC-SD-48-001-100813, and FD-100813-01 were removed.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-41-002-100813 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG642616 met all %R control limits established in the QAPP.

The LCS for batch WG642366 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-41-002-100813 from this SDG. All %R and RPD results met the QAPP control limits.

The MS/MSD for batch WG642366 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/10/13 for batch WG642616 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.015 mg/Kg), yielding an action level of 0.075 mg/Kg. All arsenic results for the samples in this SDG were detections above the action level and no qualification was required.

The method blank analyzed on 10/09/13 for batch WG642366 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100813-01, was associated with all samples in this SDG and was contaminated with arsenic (0.3270 µg/L), yielding an action level of 0.0540 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100813-01 was a field duplicate of sample RC-SD-48-001-100813. The calculated RPD for arsenic (11.9%) was below the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|---------------------|---------|-----------|---------------|-----------------|---------------------|
| RC-SD-41-002-100813 | Arsenic | 228 | Q | 228 | -- |
| RC-SD-48-001-100813 | Arsenic | 15.0 | Q | 15.0 | -- |
| FD-100813-01 | Arsenic | 16.9 | Q | 16.9 | -- |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1320192 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/24/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|------------------------|----------------------|----------------|----------|
| SA-71-SD-24-001-100913 | L1320192-01 | WG642617 | Sediment |
| SA-71-SD-23-002-100913 | L1320192-02 | WG642617 | Sediment |
| SA-71-SD-22-002-100913 | L1320192-03 | WG642617 | Sediment |
| SA-71-SD-21-001-100913 | L1320192-04 | WG642617 | Sediment |
| SA-71-SD-20-001-100913 | L1320192-05 | WG642617 | Sediment |
| SA-71-SD-19-001-100913 | L1320192-06 | WG642617 | Sediment |
| FD-100913-01 | L1320192-07 | WG642617 | Sediment |
| EB-100913-01 | L1320192-08 | WG642615 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and were properly preserved. However, the cooler was received at a temperature above the 6° F threshold required by the QAPP. Because the cooler was delivered by the field sampling team directly to the laboratory, it is possible that it did not have adequate time to reach the appropriate temperature while in transit. The analyte of interest is stable above the temperature threshold, and therefore, in the opinion of the reviewer, no qualification was necessary. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-24-001-100913 from this SDG. The RPD was above the QAPP control limit at 36%. The antimony results for all sediment samples were detections above the PQL and should be qualified J.

The duplicate analysis for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

***Qualification:* The antimony results for all sediment samples were qualified J.**

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG642617 met all %R control limits established in the QAPP.

The LCS for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-24-001-100913 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (32% MS and 44% MSD). The antimony results for all sediment samples were detections above the PQL and should be qualified J.

The MS for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: The antimony results for all sediment samples were qualified J.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/10/13 for batch WG642617 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/10/13 for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100913-01, was associated with all samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-100913-01 was a field duplicate of sample SA-71-SD-24-001-100913. The calculated RPD for antimony (34.5%) was above the QAPP control limit; the antimony results for samples FD-100913-01 and SA-71-SD-24-001-100913 were detections greater than 5x the PQL and should be qualified J.

Qualification: The antimony results for samples FD-100913-01 and SA-71-SD-24-001-100913 were qualified J.

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|------------------------|----------|-----------|---------------|-----------------|---------------------|
| SA-71-SD-24-001-100913 | Antimony | 1.70 | -- | 1.70 | J |
| SA-71-SD-23-002-100913 | Antimony | 3.41 | -- | 3.41 | J |
| SA-71-SD-22-002-100913 | Antimony | 6.04 | -- | 6.04 | J |
| SA-71-SD-21-001-100913 | Antimony | 7.88 | -- | 7.88 | J |
| SA-71-SD-20-001-100913 | Antimony | 46.3 | -- | 46.3 | J |
| SA-71-SD-19-001-100913 | Antimony | 6.22 | -- | 6.22 | J |
| FD-100913-01 | Antimony | 1.20 | -- | 1.20 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

| | |
|---|------------------|
| Site: Railroad Round/Plow Shop Pond | SDG #: L1320452 |
| Laboratory: Alpha Analytical Laboratories | Date: 01/24/2014 |
| HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14) | Project: SO1006 |

| Client Sample ID* | Laboratory Sample ID | Analysis Batch | Matrix |
|-----------------------|----------------------|----------------|----------|
| SA71-SD-20-002-101113 | L1320452-01 | WG643632 | Sediment |
| FD-101113-01 | L1320452-02 | WG643632 | Sediment |
| EB-101113-01 | L1320452-03 | WG643633 | Water QC |

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-20-002-101113 from this SDG. The RPD was above the QAPP control limit at 22%. The antimony results for both sediment samples were detections above the PQL and should be qualified J.

The duplicate analysis for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

***Qualification:* The antimony results for samples SA71-SD-20-002-101113 and FD-101113-01 were qualified J.**

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG643632 met all %R control limits established in the QAPP.

The LCS for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-20-002-101113 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were above the upper control limit (542% MS and 415% MSD). The antimony

concentration for the parent sample was >4x the spiked amount, and therefore, the results were not applicable; no qualification was required.

The MS for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/15/13 for batch WG643632 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/15/13 for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-101113-01, was associated with all samples in this SDG and was contaminated with antimony (0.1244 µg/L), yielding an action level of 0.0205 mg/Kg. The antimony results for both samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-101113-01 was a field duplicate of sample SA71-SD-20-002-101113. The calculated RPD for antimony (70.2%) was above the QAPP control limit; the antimony results for samples FD-101113-01 and SA71-SD-20-002-101113 were detections greater than 5x the PQL and should be qualified J.

***Qualification:* The antimony results for samples FD-101113-01 and SA71-SD-20-002-101113 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as “ND”; these results should be considered the equivalent of “PQL U.” Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier |
|-----------------------|----------|-----------|---------------|-----------------|---------------------|
| SA71-SD-20-002-101113 | Antimony | 11.0 | -- | 11.0 | J |
| FD-101113-01 | Antimony | 22.9 | -- | 22.9 | J |

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Soil and Sediment Analytical Results
Devens Railroad Roundhouse (SA71)
July - December 2013

| Sample Identification | Units | SW6020A | |
|------------------------|-------|----------|------|
| | | Antimony | Qual |
| SA71-SD-09-001-082613 | mg/Kg | 2.36 | J |
| FD-082613 | mg/Kg | 2.39 | J |
| SA71-SD-18-001-082613 | mg/Kg | 0.702 | J |
| SA71-SD-08-001-082613 | mg/Kg | 2.81 | J |
| SA-71-SD-07-001-082813 | mg/Kg | 6.05 | J |
| SA-71-SD-06-001-082813 | mg/Kg | 6.37 | J |
| SA-71-SD-05-001-082813 | mg/Kg | 5.59 | J |
| SA-71-SD-04-001-082813 | mg/Kg | 5.95 | J |
| SA-71-SD-15-001-082813 | mg/Kg | 8.28 | J |
| SA-71-SD-14-001-082813 | mg/Kg | 6.66 | J |
| SA-71-SD-13-001-082813 | mg/Kg | 10.4 | J |
| SA-71-SD-03-001-082813 | mg/Kg | 5.98 | J |
| SA-71-SD-12-001-082813 | mg/Kg | 3.23 | J |
| SA-71-SD-02-001-082813 | mg/Kg | 4.53 | J |
| FD-082813-01 | mg/Kg | 8.25 | J |
| SA-71-SD-01-001-082913 | mg/Kg | 6.16 | J |
| SA-71-SD-11-001-083013 | mg/Kg | 10.1 | J |
| SA-71-SD-10-001-083013 | mg/Kg | 2.89 | J |
| SA-71-SD-17-001-083013 | mg/Kg | 1.18 | J |
| SA-71-SD-16-001-083013 | mg/Kg | 2.04 | J |
| FD-083013-01 | mg/Kg | 3.14 | J |
| SA-71-SD-05-002-090613 | mg/Kg | 6.93 | J |
| SA-71-SD-04-002-090613 | mg/Kg | 7.81 | J |
| SA-71-SD-06-002-090613 | mg/Kg | 3.08 | J |
| FD-090613-01 | mg/Kg | 6.10 | J |
| SA-71-SD-15-002-090613 | mg/Kg | 2.89 | J |
| SA-71-SD-14-002-090613 | mg/Kg | 7.52 | J |
| SA71-SD-01-002-091013 | mg/Kg | 1.56 | |
| SA71-SD-11-002-091013 | mg/Kg | 50.8 | |
| SA71-SD-03-002-091013 | mg/Kg | 0.602 | |
| SA71-SD-13-002-091013 | mg/Kg | 1.62 | J |
| FD-091013-01 | mg/Kg | 2.43 | J |
| SA-71-SD-07-002-091113 | mg/Kg | 0.985 | |
| RC-SD-52-001-091113 | mg/Kg | 39.5 | J |
| FD-091113-01 | mg/Kg | 27.6 | J |
| SA-71-SD-11-003-091913 | mg/Kg | 5.81 | J |
| FD-091913-02 | mg/Kg | 4.50 | J |
| SA71-SD-23-001-100413 | mg/Kg | 2.64 | J |
| SA71-SD-22-001-100413 | mg/Kg | 5.98 | J |
| SA-71-SD-24-001-100913 | mg/Kg | 1.70 | J |
| SA-71-SD-23-002-100913 | mg/Kg | 3.41 | J |
| SA-71-SD-22-002-100913 | mg/Kg | 6.04 | J |
| SA-71-SD-21-001-100913 | mg/Kg | 7.88 | J |
| SA-71-SD-20-001-100913 | mg/Kg | 46.3 | J |
| SA-71-SD-19-001-100913 | mg/Kg | 6.22 | J |
| FD-100913-01 | mg/Kg | 1.20 | J |
| SA71-SD-20-002-101113 | mg/Kg | 11.0 | J |
| FD-101113-01 | mg/Kg | 22.9 | J |

Notes:

mg/Kg = milligrams per kilogram

MCP GW-1 Standard:

6

MCP GW-3 Standard:

80,000

Soil and Sediment Analytical Results
Devens Plow Shop Pond (Red Cove)
July - December 2013

| Sample Identification | Units | SW6020A | |
|-----------------------|-------|---------|------|
| | | Arsenic | Qual |
| RC-SD-43-001-091113 | mg/Kg | 25.3 | |
| RC-SD-51-001-091213 | mg/Kg | 183 | |
| RC-SD-42-001-091213 | mg/Kg | 229 | |
| RC-SD-32-001-091213 | mg/Kg | 35.6 | |
| FD-091213-01 | mg/Kg | 216 | |
| RC-SD-33-001-091313 | mg/Kg | 664 | |
| FD-091313-01 | mg/Kg | 632 | |
| RC-SD-50-001-091713 | mg/Kg | 510 | J |
| RC-SD-55-001-091713 | mg/Kg | 29.2 | J |
| FD-091713-01 | mg/Kg | 543 | J |
| RC-SD-41-001-091813 | mg/Kg | 2910 | |
| FD-091813-01 | mg/Kg | 2510 | |
| RC-SD-40-001-091913 | mg/Kg | 2090 | J |
| FD-091913-01 | mg/Kg | 2690 | J |
| RC-SD-49-001-092013 | mg/Kg | 274 | J |
| RC-SD-53-001-092013 | mg/Kg | 6.81 | J |
| RC-SD-54-001-092313 | mg/Kg | 31.7 | J |
| RC-SD-60-001-092413 | mg/Kg | 12.5 | |
| RC-SD-58-001-092413 | mg/Kg | 32.9 | |
| RC-SD-57-001-092413 | mg/Kg | 22.4 | |
| RC-SD-56-001-092413 | mg/Kg | 5.56 | |
| RC-SD-59-001-092413 | mg/Kg | 7.39 | |
| RC-SD-44-001-092513 | mg/Kg | 197 | |
| RC-SD-35-001-092513 | mg/Kg | 251 | |
| RC-SD-34-001-092513 | mg/Kg | 506 | |
| FD-092513-01 | mg/Kg | 492 | |
| RC-SD-25-001-092513 | mg/Kg | 130 | |
| RC-SD-36-001-100213 | mg/Kg | 195 | |
| RC-SD-37-001-100213 | mg/Kg | 291 | |
| RC-SD-38-001-100213 | mg/Kg | 93.9 | |
| RC-SD-39-001-100213 | mg/Kg | 110 | |
| RC-SD-45-001-100213 | mg/Kg | 23.7 | |
| RC-SD-46-001-100213 | mg/Kg | 156 | |
| RC-SD-47-001-100213 | mg/Kg | 127 | |
| FD-100213-01 | mg/Kg | 163 | |
| RC-SD-23-001-100213 | mg/Kg | 120 | |
| RC-SD-24-001-100213 | mg/Kg | 73.8 | |
| RC-SD-29-001-100213 | mg/Kg | 157 | |
| RC-SD-30-001-100213 | mg/Kg | 133 | |
| RC-SD-31-001-100213 | mg/Kg | 95.2 | |
| RC-22-001-100213 | mg/Kg | 157 | |
| RC-SD-19-001-100313 | mg/Kg | 117 | |
| RC-SD-20-001-100313 | mg/Kg | 185 | |
| RC-SD-21-001-100313 | mg/Kg | 185 | |
| RC-SD-26-001-100313 | mg/Kg | 164 | |

Soil and Sediment Analytical Results
Devens Plow Shop Pond (Red Cove)
July - December 2013

| Sample Identification | Units | SW6020A | |
|-----------------------|-------|---------|------|
| | | Arsenic | Qual |
| RC-SD-27-001-100313 | mg/Kg | 657 | |
| RC-SD-28-001-100313 | mg/Kg | 104 | J |
| FD-100313-001 | mg/Kg | 166 | J |
| RC-SD-13-001-100313 | mg/Kg | 221 | |
| RC-SD-18-001-100313 | mg/Kg | 291 | |
| RC-SD-10-001-100313 | mg/Kg | 449 | |
| RC-SD-14-001-100313 | mg/Kg | 244 | |
| RC-SD-15-001-100313 | mg/Kg | 101 | |
| RC-SD-16-001-100313 | mg/Kg | 232 | |
| RC-SD-06-001-100413 | mg/Kg | 399 | |
| RC-SD-07-001-100413 | mg/Kg | 128 | |
| RC-SD-08-001-100413 | mg/Kg | 98 | |
| RC-SD-11-001-100413 | mg/Kg | 65.2 | |
| RC-SD-12-001-100413 | mg/Kg | 78.3 | |
| RC-SD-17-001-100413 | mg/Kg | 113 | |
| RC-SD-01-001-100713 | mg/Kg | 174 | |
| RC-SD-02-001-100713 | mg/Kg | 177 | |
| RC-SD-03-001-100713 | mg/Kg | 302 | |
| RC-SD-04-001-100713 | mg/Kg | 163 | |
| RC-SD-05-001-100713 | mg/Kg | 86.4 | |
| FD-100713-01 | mg/Kg | 163 | |
| RC-SD-09-001-100713 | mg/Kg | 89.2 | |
| RC-SD-40-002-100713 | mg/Kg | 58.6 | |
| RC-SD-41-002-100813 | mg/Kg | 228 | |
| RC-SD-48-001-100813 | mg/Kg | 15.0 | |
| FD-100813-01 | mg/Kg | 16.9 | |

Notes:

mg/Kg = milligrams per kilogram

MCP GW-1 Standard:

10

MCP GW-3 Standard:

900

APPENDIX K

Response to Comments

(See CD Included Separately)

**MassDEP COMMENTS ON
DRAFT FINAL REMOVAL ACTION COMPLETION REPORT FOR
RAILROAD ROUND HOUSE AND RED COVE
FORMER FORT DEVENS ARMY INSTALLATION (RTN 2-0000662)
May 2, 2014**

Comments on the draft final Removal Action Completion Report for Railroad Round House and Red Cove, received May 2, 2014:

- 1) Section 4.7.1: The report should cite or include documentation to support the assertion that the range of arsenic concentrations reported in the staging area samples (8.93 mg/kg to 35.4 mg/kg) is within the local background range.

Response:

The source citation will be inserted in the text.

In March 2004, a Final Soil Arsenic Background Study at Former Fort Devens Site documented background arsenic concentrations ranging from 3.8 to 38 mg/kg. Recognizable consistencies in elevated arsenic concentrations (>20 ppm) were documented in particular in the west central, southwestern and southeastern portions of Devens potentially attributable to the geology of these areas. This study was completed by the Army Corp of Engineers.

- 2) Tables 2 and 4: The laboratory data qualifiers presented in these tables should be replaced with the data validation qualifiers (Appendix J).

Response:

These tables are intended to present laboratory data. Any change to validated data is noted in Appendix J.

- 3) Appendix C should include laboratory reports for all of the September 2013 and October 2013 surface water monitoring events, and the laboratory report presenting results from SA-71 sediment samples (p. 656-691) should be deleted from Appendix C.

Response:

These pages will be removed from Appendix C.

- 4) Appendix E: Laboratory reports for waste characterization samples (p. 1364-1912) should be moved to Appendix F.

Response:

These soil samples were part of the investigation around the vault buried at Railroad Round House and belong in Appendix E.

- 5) Appendix F: Laboratory reports for the staging area samples (p. 2318-2413) should be moved to Appendix G.

Response:

The pages noted will be moved to Appendix G.

- 6) Appendix G: Please confirm/correct the location of the SHL02 area shown in the sample location map. The indicated location does not appear to be a sediment staging area, suggesting that SHL02 was actually located farther to the east where SA-71 sediment was staged. In addition, the map should be corrected to eliminate inconsistencies between the sample identifiers, posted sample results, and sample locations shown in the map and concentrations listed in the laboratory reports.

Response:

The location of SHL02 is correct. Any inconsistencies in sample nomenclature and locations will be corrected.

- 7) Appendix J, Page 71 of DQE Report: Results from sample RC-SD-52-001-091113, which was collected from Red Cove, should be listed with the Red Cove sample results.

Response:

The sample results were moved to the Red Cove sample results section.

**EPA COMMENTS ON
DRAFT FINAL REMOVAL ACTION COMPLETION REPORT FOR
RAILROAD ROUND HOUSE AND RED COVE
FORMER FORT DEVENS ARMY INSTALLATION (RTN 2-0000662)
May 2, 2014**

GENERAL COMMENTS

- 1) The report offers an accurate summary of the removal actions completed during 2013 and includes all of the documentation typically included in a closeout report. However, the information could be presented more clearly if some editorial changes were made, such as changing the tense of work descriptions from future to past, and ensuring that references to figures presented in the text of the report are accurate.

Response:

The text will be revised as necessary to improve the readability of the RACR.

- 2) Please define the JB qualifier in Table 2 and Table 4.

Response:

The qualifiers noted at a 'J' and a 'B', not 'JB'. The notes for each qualifier are located at the notes section of each table. The definition of the 'B' qualifier will be added to the Table 2 and 4.

SPECIFIC COMMENTS

- 1) Table of Contents – Figure and Table descriptions listed in the TOC do not match actual figure and table names. Please revise.

Response:

The table of context will be revised as needed.

- 2) Section 1, 2nd bullet and Section 3.2.1, pg 7 – To be consistent with the removal action at Red Cove (arsenic-impacted sediments), please consider adding *mitigate "PAH and antimony" impacts to sediment* in describing the rationale for the RRRH removal action.

Response:

The Removal Action Objectives for Red Cove and Railroad Round House were established and agreed to in the ECCA (Sovereign, 2011), therefore the bullet will remain the same.

- 3) Section 2.2, pg 5 – The next to last paragraph describes the benthic community in the Railroad Round House area and concludes in the last sentence "The CSI did not establish a distinction between ash and non-ash exposure area locations." Although this is correct for

the benthic community, it ignores the fact that the sediment toxicity and chemistry data for the RRRH area were sufficient for EPA to derive a risk-based preliminary remedial goal for antimony, as acknowledged on the top of page 8. Therefore, it is recommended that language equivalent to the following be inserted after the above-mentioned sentence:

“However, the sediment toxicity and chemistry data were sufficient for EPA to derive a risk-based preliminary remedial goal (PRG) for antimony.”

Response:

The recommended text will be inserted as described above.

- 4) Section 2.1.1 – In the last paragraph it is stated “The predominant source of the dissolved arsenic emanating from the landfill appears to be naturally occurring arsenic within aquifer sands and bedrock materials. Arsenic is being mobilized by both naturally-occurring and landfill-induced conditions through the geochemical process of reductive dissolution which releases dissolved arsenic to the aquifer.” Please revise this sentence because EPA believes that there may be additional sources of arsenic-containing wastes in the landfill.

Response:

The phrase “predominant source of dissolved arsenic” infers that the naturally occurring arsenic is not the only source dissolved arsenic released to the aquifer from SHL, but the largest contributing component. Therefore the Army does not agree that the language should be revised in this instance.

- 5) Section 3.1.2, pg 6, 1st paragraph and Figure 3 – Although this section addresses Red Cove, Figure 3 depicts RRRH excavation area. Please revise.

Response:

The figure number will be updated in the text to state “Figure 2”.

- 6) Section 3.3.2, pg 9, 2nd paragraph – The quantity of sediment (CY) to be excavated does not correlate with the “directly disturbed” sediment amounts. Please clarify.

Response:

*Red Cove - $(80,000 \text{ ft}^2 * 12 \text{ inches} * 1 \text{ ft} / 12 \text{ inches}) / (1 \text{ yd}^3 / 27 \text{ ft}^3) = 2,963 \text{ yd}^3 \sim 3,000 \text{ yd}^3$*

*RRRH - $(8,000 \text{ ft}^2 * 36 \text{ inches} * 1 \text{ ft} / 12 \text{ inches}) / (1 \text{ yd}^3 / 27 \text{ ft}^3) = 889 \text{ yd}^3 \sim 900 \text{ yd}^3$*

- 7) Section 3.3.2, pg 9, 4th paragraph – This section refers to a barrier/were that was installed prior to dewatering activities. Please update the figure(s) to depict the location of the barrier/weir. Please update to show that Section 4.2 discusses Site Preparation activities (not Section 4.3). Please also provide an estimated pumping rate per day instead of only referencing the drawdown per day (i.e., 12 inches per day).

Response:

The text in section 3.3.2 will be changed to state the following: "To maintain a suitable water level and environment for the ponds eco-system within Grove Pond, a dam of sandbags was built to isolate Grove Pond from Plow Shop Pond. The sandbags were placed to create a low flow weir, to allow controlled overflow from one pond to another prior to dewatering activities."

The flow of water was not measured, the pond level was determined to be the key metric in the RAWP, therefore the pond drawdown was recorded.

- 8) Section 3.3.2, pg 10, 2nd paragraph – This paragraph states there are currently no critical aquatic species in Plow Shop Pond, however, in Section 1.1 the report states the pond is considered an Area of Critical Environmental Concern (ACEC). Please address this apparent inconsistency in the report.

Response:

As stated in Section 1.1 "There are no rare species in the pond but adjacent upland is mapped by NHESP for several state listed species and the state and federally listed grasshopper sparrow." The language in Section 1.1 will be updated to clarify this point.

- 9) Section 4.4.1, pg 14 – Add "dewatering" to "temporary basins".

Response:

The word dewatering was inserted as recommended.

- 10) Section 4.4.2, pg 12 – The last sentence before Section 4.2.4 states "This periodic pumping at lower flows provided continuous water to Nonacoicus Brook, to the extent practicable." The phrase "to the extent practicable" implies that it may not have been practical to provide continuous flow to the brook at all times. Please discuss at this point in the text whether there were periods of no flow and, if so, the duration of no flow periods, if known. Also, please discuss whether flow was monitored and recorded in the field notes.

Response:

The following text will be inserted in Section 4.3: "When dewatering of the pond was conducted intermittently the brook conditions were monitored for water level, temperature and aquatic activity. These notes are located in Appendix C."

- 11) Section 4.4.3, pg 14 – Consider moving section or re-numbering figure (Figure 13D), since figure numbering order does not align with order of text. Please add approximate depth of the abandoned vault.

Response:

Figure 13D has been eliminated and Figure 11 will be updated and used in its place.

- 12) Section 4.5, pg 15-16 – Tables 2 and 3 summarize post-excavation sediment results; Figures 4 and 5 depict grid locations; and sampling data is depicted in Figures 12a and 12b. Please consider updating Table 2 to include columns that identify Grid # and Post-excavation sampling depth. This will facilitate data review. Please add sampling dates to the text. There are data (sample numbers “FD-XXX”) that are not depicted in Figures 12a or 12b. Please explain. Also, please mark in Table 2 the actual concentrations of arsenic that were used to calculate the post-excavation average and UCL using ProUCL so that EPA can reproduce the numbers.

Response:

As described in the RAWP the sample labels include the Grid Number; for example RC-SD-01-001 is located in Grid 01. The FD samples are Field Duplicates, as described in the RAWP and FSP, therefore, they are not explicitly marked on figures as their original samples are. For ease of reading the updated Table 2 includes a note column if the sample was used to calculate the average and if it was included in the ProUCL calculations. Table 2 has been updated to include the Grid # and sample depth.

Revised RTC, see red text.

What about the sampling date in the text?

- 13) Section 4.5.2 – The last sentence of the first paragraph states “All excavated sediments were inspected for visual evidence of the targeted railroad maintenance byproduct deposits and removed as noted.” Please clarify the phrase “removed as noted.” Does it mean as noted previously in the methods description or something else. Change “Proposed Action Limit” to “Preliminary Remedial Goal (“PRG”) for antimony to be consistent with the RAWP.

This section indicates that antimony samples were collected from 19 cells and concentrations from 10 of the 19 cells were above 4.6 mg/kg. However, Figures 5 and 13a depict 24 sampling grids, with arsenic exceedances in 14 of the grids. Please revise the text.

Response:

The word “below” will be inserted in the last sentence of the first paragraph.

PAL will be replaced by PRG throughout the RACR.

The text describes the chronological order of events, correctly. Figures 13a, 13b and 13c represent the rounds of data collected per cell. Each are correct, therefore no changes to the text or figures have been made.

Please discuss how the post-excavation statistical average was calculated, specifically, mention that the average was calculated using post-excavated concentrations. The actual concentrations used for calculating this average should be marked on Table 4 so that EPA can reproduce the calculation. If it is decided to use ProUCL, please provide a copy of output.

An arithmetic mean was used to calculate the average antimony concentration of all post excavation data. The following text edit will be made to clarify this point.

“The arithmetic mean of all the cells, post excavation, is below the 4.6 mg/kg antimony limit.”

Table 4 will include a note column if the sample was used to calculate the average.

- 14) Section 4.5.2 - In the next to last paragraph on page 16 it is stated that the overall statistical average of all the cells is below the 4.6 mg/kg antimony limit. Please add a sentence that identifies the method for calculating the overall statistical average as well as the calculated mean concentration of antimony.

Response:

An arithmetic mean was used to calculate the average antimony concentration of all post excavation data. Text edits will be made as noted in the response to comment 13 above.

- 15) Section 4.7.1 – The last sentence of the first paragraph states: “All the arsenic data collected was [sic] below or within range of regional background concentration (of) arsenic [sic].” Please provide the range of background concentrations and the source of this information.

Response:

Please see the response to MassDEP Comment No.1.

- 16) Section 4.7.1, 2nd paragraph – Please replace “tolerable” with “tolerant” unless the term “tolerable” is technically correct to describe this type of seed mix.

Response:

The recommended text edit will be made.

- 17) Section 6.4: Since much of the data were Q-qualified, please provide a discussion in this section that specifically evaluates the usability of Q-qualified data for its intended purpose (i.e. exceedance of statistical mean).

Response:

The following text will be inserted at the end of Section 6.4:

“As noted in the DQE, all of the Q qualifiers were removed because the quality control check at the laboratory that caused them is not within the description of Level 2 data validation. So, all of the results were usable. Page 5 of the DQE discusses the removal of the Qs.”

- 18) Section 8.0, pg 22 – Please provide a note defining the asterisk next to Site Preparation Costs.

Response:

The asterisk will be deleted.