



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100

BOSTON, MA 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

AUG 31 2015

Observatory Hill Apartments, LLC
195 Lexington Street
Cambridge, MA 02138

Re: Authorization to discharge under the Remediation General Permit (RGP) – for the 253 Walden Street site located in Cambridge, Massachusetts; Authorization # MAG910695

To Whom It May Concern:

Based on the review of a Notice of Intent (NOI) that was submitted on your behalf by Stephen Landry of Simmons Environmental Services, Inc. for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes Simmons Environmental Services, Inc., as the named Operator, to discharge in accordance with the provisions of the RGP from this site via the City of Cambridge storm drain system¹ to Wellington Brook, a Class B waterbody, and tributary to Alewife Brook. The authorization number is listed above. The effective date of coverage is the date of this authorization letter.

The table enclosed with this RGP authorization indicates the pollutants which are required for monitoring. Also indicated on the table are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the table does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: <http://www.epa.gov/region1/npdes/rgp.html>.

Please note the enclosed table includes parameters that data submitted with the NOI indicated exceed Appendix III limits. The table also includes other parameters for which there was insufficient sensitivity to detect these parameters at the minimum levels (ML) established in Appendix VI of the RGP. Pursuant to Part I, Section C.7., of the RGP, dilution factors may be determined for discharges to fresh waters for use in calculating effluent limits for metals. Based on the information included with the NOI, a dilution

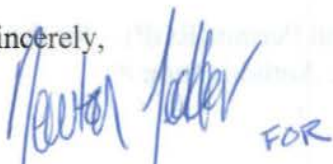
¹ The operator is responsible for meeting any requirements of the City prior to discharge to their system.

factor of 1.01 was used to calculate the metals limits for this proposed discharge using the hardness-based limits for dilution factor range 1 – 5 in Appendix IV of the RGP.

This EPA general permit and authorization to discharge will expire on **September 9, 2015**. However, in accordance with the general permit, your permit coverage is administratively continued until issuance of a new RGP. You have reported this project will terminate on July 1, 2016. Please be aware you are required to reapply for coverage after the EPA expired permit has been reissued. The reissuance date as well as the reapplication submittal date will be posted on the EPA web site at that time. Regardless of your project termination date, you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within thirty (30) days of the termination of the discharge.

Thank you in advance for your cooperation in this matter. Please contact George Papadopoulos at (617) 918-1579 or Papadopoulos.George@epa.gov, if you have any questions.

Sincerely,



Thelma Murphy, Chief
Storm Water and Construction Permits Section

Enclosure

cc: Stephen Landry, Simmons Environmental Services, Inc.
Robert Kubit, MassDEP
George Stylianopoulos, City of Cambridge

**2010 Remediation General Permit
Summary of Effluent Limitations**

Note: All samples are to be collected as grab samples

| | |
|------------------------------------|------------------|
| NPDES Authorization Number: | MAG910695 |
|------------------------------------|------------------|

| <u>Parameter</u> | <u>Effluent Limit/Method#/ML</u> Effluent limits are daily maximum limits, unless denoted by a **, which are monthly average limits | |
|---|---|---|
| 1. Total Suspended Solids (TSS) | 30 milligrams/liter (mg/L) **, Me#160.2/ML5 µg/L | |
| 3. Total Petroleum Hydrocarbons (TPH) | 5.0 mg/L/ Me# 1664A/ML 5.0 mg/L | |
| 38. Chloride | Monitor only/Me# 300.0/ ML 100 µg/L | |
| <u>Metal Parameters</u> | <u>Total Recoverable Metal Limit at Hardness = 50 mg/L CaCO₃)¹⁰</u> <u>Units = µg/l</u> | <u>Minimum level=ML¹¹</u> |
| | <u>Freshwater Limits</u> | |
| 45. Lead ** | 1.31 Me# 200.8, 3010A/6020A | 0.2 µg/l |
| 50. Zinc ** | 67.3 Me# 200.7, 3010A/6010C | 15 µg/l |
| 51. Iron | 1,010 Me# 200.7, 3010A/6010C | 20 µg/l |
| <u>Other Parameters</u> | <u>Limit</u> | |
| 52. Instantaneous Flow | Site-specific cubic feet/second (CFS) | |
| 53. Total Flow | Site-specific in CFS | |
| 55. pH Range for Class SA & Class SB Waters in MA | 6.5-8.5; 1/Month/Grab ¹² | |

Footnotes:

¹⁰ Lead and Zinc are Hardness-Dependent. The hardness value for freshwater in Massachusetts is 50 mg/L.

¹¹ The Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The MLs required by this permit are included in Appendix VI.

¹² pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.



August 13, 2015

Ref. #130805

US Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
Attn: Remediation General Permit NOI Processing
Email: NPDES.Generalpermits@epa.gov

Re: Remediation General Permit – Notice of Intent
Construction Excavation Dewatering
253 Walden Street, Cambridge, MA 02138

Dear EPA:

On behalf of the Observatory Hill Apartments, LLC, Simmons Environmental Services, Inc. (SIMMONS) has prepared the following Notice of Intent of a Remediation General Permit (RGP) to begin operation of a dewatering system for construction of a building foundation at 253 Walden Street in Cambridge, MA.

In accordance with the Massachusetts Contingency Plan (MCP), this property where the dewatering is being conducted is listed by Massachusetts Department of Environmental Protection (MassDEP) as 1) a former disposal sites where a historical release of gasoline and waste oil was closed out with a Permanent Solution under MassDEP Release Tracking Numbers (RTNs) 3-31757 & 3-31801 and 2) a current disposal site where urban fill containing lead up to 440 mg/Kg is within soil that is to be removed for offsite disposal under RTN 3-32960.

Based upon these site conditions, the subject discharge for this RGP should be classified as Category I (Petroleum Related Site Remediation), Subcategory C (Petroleum Sites with Additional Contamination) and Category III (Contaminated Construction Dewatering), Subcategory A (General Urban Fill Sites). This RGP is being requested to allow for the dewatering to discharge to the adjacent storm drain system.

Background

The property is owned by the Observatory Hill Apartments LLC. The property is currently vacant and was most recently used as a warehouse for a hardware store since the early 1980s, a gas station between 1930 and 1981, a residence, plumber's shop, and unknown garage in 1921, a residence and unknown building in 1915, a residence in 1903, and several unknown buildings in 1894 and 1873.

Contaminants detected at the property that exceeded MassDEP standards consisted of lead in soil from the urban fill and petroleum in soil from the former gasoline and waste oil USTs. The petroleum release associated with the former MassDEP disposal sites (RTNs 3-31757 & 3-31801) achieved a condition of no significant risk and closure with submittal of a Permanent Solution (formerly referenced as a Class A-2 Response Action Outcome (RAO)) statement in March 2014. The property also contains a current disposal site condition under MassDEP RTN 3-32960 for lead in urban fill up to 440 mg/Kg that exceeds MassDEP RCS-1 reportable concentration of 200



mg/Kg. Once the lead contaminated urban fill is removed as part of the proposed property development, a Permanent Solution is to be subsequently submitted to MassDEP for closure of that site condition.

The proposed building foundation is to be constructed in an area where over 1700 tons of petroleum impacted soil was previously removed to achieve site closure and where lead was detected in urban soil. Concentrations of dissolved lead at 16 ug/L and total petroleum hydrocarbon (TPH) at 42 mg/L were previously detected in groundwater, but there were no VOCs detected. Analyses of the same groundwater for extractable petroleum hydrocarbon (EPH) and volatile petroleum hydrocarbon (VPH) fractions showed only 256 ug/L of the C19-C36 aliphatic fraction. The laboratory reports are included in the Appendix of this submittal. The property layout is shown in the enclosed Dewatering Site Plan (Figure 2).

After submittal of this RGP, a separate application for a Permit to Dewater will be submitted to the City of Cambridge to comply with local regulatory requirements.

The soil excavation, sampling, analyses, and offsite disposal will be managed under RTN 3-32960 as a Release Abatement Measure (RAM) Plan in accordance with 310 CMR 40.0440.

Treatment System

As shown in the Dewatering Site Plan (Figure 2) and Process Flow Diagram (Figure 3), groundwater will be pumped from the excavation into a fractionation tank, then through a bag filter and two 200-lb granular activated carbons (GAC) units for treatment, and then pumped to the storm drain system that discharges to Wellington Brook, which discharges to the Alewife Brook, the Mystic River, and finally to Boston Harbor.

No exceedances of any EPA limits are expected. However, groundwater that is being discharged from the fractionation tank through the treatment components and then to the storm drain system will be sampled and submitted for immediate analyses to confirm that there is no reasonable potential for exceedance of the Appendix III limits.

ACEC and NHESP Habitats

According to review of the Massachusetts Geographic Information System (GIS) Site Scoring Map and EPA Listings and Occurrences for Endangered Species (Appendix Section), none of the receiving surface water bodies, i.e. Wellington Brook, Alewife Brook, and Mystic River, contains any of the 17 animal and 3 plant species listed for Massachusetts. In addition, there is only one federally listed species, the Piping Plover for Suffolk County, which is listed for the Town of Winthrop and is outside the discharge areas along this river basin.

Because the area of dewatering is related to MassDEP disposal sites, RTNs 3-31757, 3-31801, & 3-32960 and covered under 310 CMR 40.0000, the Massachusetts Contingency Plan (MCP), there is no need to apply to MassDEP for coverage under BRP WM 12 (Remediation & Miscellaneous Contaminated Sites General Permit) and no fee to the MassDEP Division of Watershed Management is required.



If you have any questions concerning the above-mentioned information, please do not hesitate to call.

A handwritten signature in cursive script that reads 'Stephan H. Landry'.

Stephan H. Landry
Project Manager, LSP, Geologist

A handwritten signature in cursive script that reads 'William A. Simmons'.

William A. Simmons, LSP, J.D.

cc: Eric Hoagland

Attachments:

- Notice of Intent for General Remediation Permit Appendix V
- Figure 1 – Site Locus Map (USGS Quadrangle)
- Figure 2 – Dewatering Site Plan
- Figure 3 – Process Flow Diagram
- USGS Alewife Brook Surface Water Data Report
- Endangered Species List
- Groundwater Analyses Data Summary Table
- Laboratory Reports (3)

Remediation General Permit Appendix V

Notice of Intent (NOI) Suggested Forms & Instructions

I. Notice of Intent (NOI) Suggested Form and Instructions

In order to be covered by the remediation general permit (RGP), applicants must submit a completed Notice of Intent (NOI) to EPA Region I and the appropriate state agency. The owner or operator, as defined by 40 CFR § 122.2, means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.

The following are three general “**operator**” scenarios (variations on any of these three are possible, especially as the number of owners and contractors increases):

- ▶ *“Owner” as “Operator” - sole permittee.* The property owner designs the structures and control systems for the site, develops and implements the BMPP, and serves as general contractor (or has an on-site representative with full authority to direct day-to-day operations). Under the definition of operator, in this case, the “Owner” would be considered the “operator” and therefore the only party that needs permit coverage. Everyone else working on the site may be considered subcontractors and do not need to apply for permit coverage.
- ▶ *“Contractor” as “Operator” - sole permittee.* The property owner hires a company (e.g., a contractor) to design the project and oversee all aspects, including preparation and implementation of the BMPP and compliance with the permit (e.g., a “turnkey” project). Here, the contractor would likely be the only party needing a permit. Similarly, EPA expects that property owners hiring a contractor or consultant to perform groundwater remediation work (e.g., due to a leaking fuel oil tank) would come under this type of scenario. EPA believes that the contractor, being a professional in the industry, should be the responsible entity rather than the individual. The contractor is better equipped to meet the requirements of both applying for permit coverage and developing and properly implementing the plans needed to comply with the permit. However, property owners would also meet the definition of “operator” and require permit coverage in instances where they perform any of the required tasks on their personal properties.
- ▶ *“Owner” and “Contractor” as “Operators” - co-permittees.* The owner retains control over any changes to site plans, BMPPs, or wastewater conveyance or control designs, but the contractor is responsible for conducting and overseeing the actual activities (e.g., excavation, installation and operation of treatment train, etc.) and daily implementation of BMPP and other permit conditions. In this case, both parties need to apply for coverage.

Generally, a person would not be considered an “operator,” and subsequently would not need permit coverage, if: 1) that person is a subcontractor hired by, and under the supervision of, the owner or a general contractor (e.g., if the contractor directs the

subcontractor's activities on-site, it is probably not an operator); or 2) the person's activities would otherwise result in the need for coverage under the RGP but another operator has legally assumed responsibility for the impacts of project activities.

A. Instructions for the Suggested Notice of Intent (NOI) - At a minimum, the Notice of Intent must include the following for each individual facility or site. Additional information may be attached as needed.

1. General facility/site information.

a) Provide the facility/site name, mailing address, and telephone and fax numbers. Provide the facility Standard Industrial Classification (SIC) code(s), which can be found online at http://www.osha.gov/pls/imis/sic_manual.html. Provide the site location, including longitude and latitude.

b) Provide the facility/site owner's name, address, email address, telephone and fax numbers, if different from the site information. Indicate whether the owner is a Federal, State/Tribal, private, or other entity.

c) Provide the site operator's (e.g., contractor's) name, mailing address, telephone and fax numbers, and email address if different from the owner's information.

d) For the site for which the application is being submitted, indicate whether:

1) a prior NPDES permit exclusion has been granted for the discharge (if so, provide the tracking number of the exclusion letter);

2) a prior NPDES application (Form 1 & 2C – for reference, please visit http://www.epa.gov/region1/npdes/epa_attach.html) has ever been filed for the discharge (if so, provide the tracking number and date that the application was submitted to EPA);

3) the discharge is a “new discharge” as defined by 40 CFR 122.2; and

4) for sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000 and exempt from state permitting.

e) Indicate whether there is any ongoing state permitting, licensing, or other action regarding the facility or site which is generating the discharge. If “yes,” provide any site identification number assigned by the state of NH or MA, any permit or license number assigned, and the state agency contact information (e.g. name, location, telephone no.).

f) Indicate whether or not the facility is covered by other EPA permits including:

1) the Multi-Sector General Permit (MSGP)

<http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>;

2) the Final NPDES General Permit for Dewatering Activity Discharges in Massachusetts and New Hampshire

<http://www.epa.gov/region1/npdes/dewatering.html>;

3) the EPA Construction General Permit

<http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>;

4) an individual NPDES permit; or

5) any other water quality-related individual or general permit.

If so, provide permit tracking number(s).

g) Indicate if the site/facility discharge(s) to an Area of Critical Environmental Concern (ACEC), as shown on the tables and maps in Appendix I.

h) Based on the nature of the facility/site and any historical sampling data, the applicant must indicate which of the sub-categories within which the potential discharge falls.

2. Discharge information.

a) Describe the discharge activities to be covered by the permit. Attach additional sheets as needed.

b) Provide the following information about each discharge:

- 1) the number of discharge points;
- 2) the maximum and average flow rate of the discharge in cubic feet per second. For the average flow magnitude, include the units and appropriate notation if this value is a calculated design value or estimate if technical/design information is not available;
- 3) the latitude and longitude of each discharge with an accuracy of 100 feet (see EPA's siting tool at: http://www.epa.gov/tri/report/siting_tool);
- 4) the total volume of potential discharge (gal), only if hydrostatic testing;
- 5) whether the discharge(s) is intermittent or seasonal and if ongoing.

c) Provide the expected start and end dates of discharge (month/day/year).

d) Attach a line drawing or flow schematic showing water flow through the facility including:

- 1) sources of intake water;
- 2) contributing flow from the operation;
- 3) treatment units; and
- 4) discharge points and receiving waters(s).

3. Contaminant information.

In order to complete the NOI, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for the parameters applicable to the sub-category into which the discharge falls, as listed in Appendix III of the permit and selected in Part 1 of the NOI form, except as noted below.

Permittees shall provide additional sampling results with the NOI if such sampling already exists, or if the permittee has reason to believe the site contains additional contaminants not listed in Appendix III for that sub-category or contains additional contaminants not included in Appendix III.

The applicant may use historical data as a substitute for the new sample if the data was collected no more than 2 years prior to the "Submittal of the NOI" and if collected pursuant to:

- i. for sites in Massachusetts, 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E");
- ii. for sites in New Hampshire, New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act;

a) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is believed present or believed absent in the potential discharge.

Based on the required sampling and analysis, the applicant must fill in the table, or provide a narrative description, with the following additional information for each chemical that is believed present (chemical that violate EPA's criteria limitations):

- 1) the number of samples taken (minimum of one sample for applicable parameters per Appendix III);
- 2) the type of sample (e.g. grab, composite, etc.);
- 3) the analytical method used, including the method number;
- 4) the minimum level (ML) of the method used (based on Appendix VI);
- 5) the maximum daily amount (concentration (ug/l) and mass (kg)) of each pollutant, based on the sampling data
lb/day (pounds per day) equals flow (in million gallons per day, MGD) times concentration in milligrams per liter (mg/l) times 8.34.
Example: 2.5 MGD x 30 mg/l TSS x 8.34 = 625.5 lb TSS/day
MGD = gallons per minute (gpm) x 0.00144
1 kg = 2.2 lbs

And;

- 6) the average daily amount (concentration and mass) of each pollutant, based on the sampling data.

If the results of any sampling indicate that pollutants exist in addition to those listed in Appendix III of the RGP of the permit, the applicant must also describe those contaminants on the NOI in boxes in section I.3.c.) on the line marked "Other," or use additional sheets as needed. Subsequently, EPA may require monitoring for such parameters or will decide if an individual permit is necessary.

c) Determination of Reasonable Potential and Allowable Dilution for Discharges of Metals:

If any *metals* are believed present in the potential discharge to freshwater¹, the applicant must follow the procedures below to determine the dilution factor for each metal.

Step 1: Initial Evaluation

- 1) The applicant must evaluate all metals believed present in the discharge subject to this permit, including "naturally occurring" metals such as dissolved and/or total Iron. Applicants must enter the highest detected concentration of the metal at zero dilution in the "Maximum value" column of the NOI.
- 2) Based on the maximum concentration of each metal, the applicant must perform an initial evaluation assuming zero dilution in the receiving water. The applicant must compare the metals concentrations in the untreated (intake) waters to the effluent limits contained in Appendix III.

¹Dilution factors may be available for discharges to saline waters but only with approval of the flow modeling information from the State prior to the submission of the NOI.

- i. If potential discharges (untreated influent) with metals contain concentrations above the concentration limits listed in Appendix III, applicant must proceed to step 2.
- ii. If potential discharges (untreated influent) with metals contain concentrations below the concentrations listed in Appendix III, the applicant may skip step 2 and those metals will **not** be subject to permit limitations or monitoring requirements.

Step 2: Calculation of Dilution Factor

1) **For applicants in NH:** If a metal concentration in a potential discharge (untreated influent) to **freshwater** exceeds the limits in Appendix III with zero dilution, the applicant shall evaluate the potential concentration considering a dilution factor (DF) using the formula below. **For sites in New Hampshire, the applicant must contact NH DES to determine the 7Q10 and dilution factor.**

$$DF = [(Qd + Qs)/Qd] \times 0.9$$

Where:

| | |
|------------|---|
| DF | = Dilution Factor |
| Qd | = Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs) |
| Qs | = Receiving water 7Q10 flow, in cfs, where 7Q10 is the annual minimum flow for 7 consecutive days with a recurrence interval of 10 years |
| 0.9 | = Allowance for reserving 10% of the assets in the receiving stream as per Chapter ENV-Wq 1700, Surface Water Quality Regulations |

i. Using the DF calculated from the formula above, the applicant must refer to the corresponding dilution range column in Appendix IV. The applicant then compares the maximum concentration of the metal entered on the NOI to the corresponding total recoverable metals limits listed in Appendix IV. Please note that for this reissuance the applicant will be permitted to determine a limit using any fraction within the 1-5 dilution factor range times the metal limit (for all regulated metals). For example: if the DF is 1.5, the Iron limit is 1,500 ug/L; if the DF is 1.5, the antimony limit is 8.4, etc. All limits above a dilution factor of 5 are maintained.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in the potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

ii. In either case, the applicant must submit the results of this calculation as part of the NOI. EPA and NH DES will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

2) **For applicants in MA:** If a metal concentration in a potential discharge (untreated influent) to **freshwater** exceeds the limits in Appendix III with zero dilution, the applicant must evaluate the potential concentration considering a dilution factor (DF) using the formula below.

$$DF = (Q_d + Q_s)/Q_d$$

Where: **DF** = **Dilution Factor**
 Q_d = **Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs)**
 Q_s = **Receiving water 7Q10 flow (cfs) where 7Q10 is the minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years**

i. The applicant may estimate the 7Q10 for receiving water by using available information such as nearby USGS stream gauging stations directly or by application of certain “flow factors,” using historic streamflow publication information, calculations based on drainage area, information from state water quality offices, or other means. In many cases Massachusetts has calculated 7Q10 information using “flow factors” for a number of streams in the state. The source of the low flow value(s) used by the applicant must be included on NOI application form. Flow data can also be obtained from web applications such as the one located at: <http://ma.water.usgs.gov/streamstats/>.

ii. Using the DF calculated from the formula above, the applicant must refer to the corresponding dilution range column in Appendix IV. The applicant then shall compare the maximum concentration of each metal entered on the NOI to the corresponding total recoverable metals limit listed in Appendix IV. Please note that for this reissuance the applicant will be permitted to determine a limit using any fraction of the 0-5 of DF times the metal limit (for all regulated metals). For example: if the DF is 1.5, the Iron limit is 1,500 ug/L; if the DF is 1.5, the antimony limit is 8.4, etc. Not to exceed DF of 5.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in a potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

iii. The applicant must submit the results of this calculation as part of the NOI. EPA (and MassDEP where the discharge is not covered by 310 CMR 40.0000) will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

4. Treatment system information.

- a) Provide a written description of the treatment train and how the system will be set up for each discharge and attach a schematic of the proposed or existing treatment system(s).
- b) Identify each major treatment unit (e.g. frac tanks, filters, air stripper, liquid phase/vapor phase activated carbon, oil/water separators, etc.) by checking all that apply and describing any additional equipment not listed. Attach additional sheets as needed.
- c) Provide the proposed average and maximum flow rates (in gallons per minute, gpm) for the discharge and the design flow rates (in gpm) of the treatment system. Clearly identify the component of the treatment with the most limited flow, i.e., the part of the treatment train that establishes the design flow.
- d) Describe any chemical additives being used, or planned to be used, and attach MSDS sheets for each. EPA may request further information regarding the chemical composition of the additive, potential toxic effects, or other information to insure that approval of the use of the additive will not cause or contribute to a violation of State water quality standards. Approval of coverage under the RGP will constitute approval of the use of the chemical additive(s). If coverage of the discharge under the RGP has already been granted and the use of a chemical additive becomes necessary, the permittee must submit a Notice of Change (NOC).

5. Receiving surface water(s) information.

- a) Identify the discharge pathway by checking whether it is discharged: directly to the receiving water (river, stream, or brook), within the facility (e.g., through a sewer drain), to a storm drain, to a wetland, or other receiving body.
- b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters into which discharge will occur.
- c) Provide a detailed map(s) indicating the location of the site and outfall(s) to the receiving water(s):
 - 1) For multiple discharges, the discharges should be numbered sequentially.
 - 2) In the case of indirect dischargers (to municipal storm sewer, etc) the map(s) must be sufficient to indicate the location of the discharge to the indirect conveyance and the discharge to the state classified surface water. The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.
- d) Provide the state water quality classification of the receiving water and the basin (for Massachusetts, the Surface Water Quality Standards (314 CMR 4.00) are available at <http://www.mass.gov/dep/water/laws/regulati.htm#wqual>) (for New Hampshire, contact the NH DES at (603) 271-2984).
- e) Specify the reported seven day-ten year low flow (7Q10) of the receiving water (see Section I.A.3) c. above). In New Hampshire, the 7Q10 must be provided by to the applicant by the New Hampshire Department of Environmental Services.

f) Indicate whether the receiving water is a listed 303(d) water quality impaired or limited water and if so, for which pollutants (see Section IX of the Fact Sheet for additional information).

For MA, the most updated integrated list of waters (CWA 303(d) and 305(b)) is available at <http://www.mass.gov/dep/water/resources/tmdls.htm#info>.

For NH, the most updated integrated list of waters (CWA 303(d) and 305(b)) is available at <http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm>.

Also, indicate if there is a final TMDL for any of the listed pollutants. For MA, final TMDLs can be found at: <http://www.mass.gov/dep/water/resources/tmdls.htm> and for NH, final TMDLs can be found at

<http://des.nh.gov/organization/divisions/water/wmb/tmdl/index.htm>. For more information, contact the states at: New Hampshire Department of Environmental Services, Watershed Management Bureau at 603-271-3503 or the Massachusetts Department of Environmental Protection at 508-767-2796 or 508-767-2873.

6. ESA and NHPA Eligibility.

As required in Parts I.A.4 and Appendix VII the operator of a site/facility must ensure that the potential discharge will not adversely affect endangered species, designated critical habitat, or national historic places that are in proximity to the potential discharge. If the potential discharge is to certain water bodies, the applicant must also submit a formal certification with the NOI that indicates the consultation, with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (the Services), resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharge is not likely to adversely affect any endangered species or critical habitat. Facilities should begin the consultation as early in the process as possible.

- a) Using the instructions in Appendix VII and information in Appendix II, indicate under which criterion listed you are eligible for coverage under this general permit.
- b) If you selected criterion D or F, indicate if consultation with the federal services has been completed or if it is underway.
- c) If consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, indicate if a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat was received.
- d) Attach documentation of ESA eligibility as described below and required in Appendix VII, Part I.C, Step 4.

Criterion A - No federally-listed threatened or endangered species or federally-designated critical habitat are present: A copy of the most current county species list pages for the county(ies) where your site or facility and discharges are located. You must also include a statement on how you determined that no listed species or critical habitat are in proximity to your site or facility or discharge locations.

Criterion B – Section 7 consultation completed with the Service(s) on a prior project: A copy of the USFWS and/or NOAA Fisheries, as appropriate, biological opinion or concurrence on a finding of “unlikely to adversely effect” regarding the ESA Section 7 consultation.

Criterion C – Activities are covered by a Section 10 Permit: A copy of the USFWS and/or the NOAA Fisheries, as appropriate, letter transmitting the ESA Section 10 authorization.

Criterion D - Concurrence from the Service(s) that the discharge is “not likely to adversely affect” federally-listed species or federally-designated critical habitat (not including the four species of concern identified in Section I of Appendix I): A copy of the USFWS and/or the NOAA Fisheries, as appropriate, letter or memorandum concluding that the discharge is consistent with the general permit’s “not likely to adversely affect” determination.

Criterion E – Activities are covered by certification of eligibility: A copy of the documents originally used by the other operator of your site or facility (or area including your site) to satisfy the documentation requirement of Criteria A, B, C or D.

Criterion F - Concurrence from the Service(s) that the discharge is “not likely to adversely affect” species of concern, as identified in Section I of Appendix I: A copy of the USFWS and/or the NOAA Fisheries, as appropriate, concurrence with the applicant’s determination that the discharge is “not likely to adversely affect” listed species.

- e) Using the instructions in Appendix VII, identify which criterion listed in Part C makes you eligible for coverage under this general permit.
- f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information. Applicants should provide any supplemental information needed to meet the requirements of the permit, including any analytical data used to support the application, and any certification(s) required.

8. Signature Requirements - The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

| | | | |
|--|-----------------------|---|---|
| a) Name of facility/site : 253 WALDEN STREET | | Facility/site mailing address: | |
| Location of facility/site : | Facility SIC code(s): | Street: | |
| longitude: 42° 23' 08" | 1522 | 253 WALDEN STREET | |
| latitude: 71° 07' 51" | | | |
| b) Name of facility/site owner : Observatory Hill | | Town: CAMBRIDGE | |
| Email address of facility/site owner: | | State: | Zip: |
| ehoagie@gmail.com | | MA | 02138 |
| Telephone no. of facility/site owner : 857-998-0836 | | County: SUFFOLK | |
| Fax no. of facility/site owner : | | Owner is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input type="radio"/> | |
| Address of owner (if different from site): | | 3. Private <input checked="" type="radio"/> 4. Other <input type="radio"/> if so, describe: | |
| | | OBSERVATORY HILL APARTMENTS, LLC | |
| Street: 195 LEXINGTON STREET | | | |
| Town: CAMBRIDGE | State: MA | Zip: 02138 | County: SUFFOLK |
| c) Legal name of operator : | | Operator telephone no: 978-463-6669 | |
| SIMMONS ENVIRONMENTAL SERVICES, INC. | | Operator fax no.: 978-463-6679 | Operator email: slandryses@gmail.com |
| Operator contact name and title: STEPHAN H. LANDRY, PROJECT MANAGER | | | |
| Address of operator (if different from owner): | | Street: | |
| | | 213 ELM STREET | |
| Town: SALISBURY | State: MA | Zip: 01952 | County: USA |

d) Check Y for “yes” or N for “no” for the following:

1. Has a prior NPDES permit exclusion been granted for the discharge? Y ☐ N ☒, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y ☐ N ☒, if Y, date and tracking #:
3. Is the discharge a “new discharge” as defined by 40 CFR 122.2? Y ☐ N ☒
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ☒ N ☐

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ☐ N ☒

If Y, please list:

1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:

1. Multi-Sector General Permit? Y ☐ N ☒,
if Y, number:
2. Final Dewatering General Permit? Y ☐ N ☒,
if Y, number:
3. EPA Construction General Permit? Y ☐ N ☒,
if Y, number:
4. Individual NPDES permit? Y ☐ N ☒,
if Y, number:
5. Any other water quality related individual or general permit? Y ☐ N ☒, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ☐ N ☒

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

| <u>Activity Category</u> | <u>Activity Sub-Category</u> |
|--|--|
| I - Petroleum Related Site Remediation | A. Gasoline Only Sites <input type="checkbox"/> B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) <input type="checkbox"/> C. Petroleum Sites with Additional Contamination <input checked="" type="checkbox"/> |
| II - Non Petroleum Site Remediation | A. Volatile Organic Compound (VOC) Only Sites <input type="checkbox"/> B. VOC Sites with Additional Contamination <input type="checkbox"/> C. Primarily Heavy Metal Sites <input type="checkbox"/> |
| III - Contaminated Construction Dewatering | A. General Urban Fill Sites <input checked="" type="checkbox"/> B. Known Contaminated Sites <input type="checkbox"/> |

| | |
|---------------------------------------|---|
| IV - Miscellaneous Related Discharges | A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites <input type="checkbox"/> B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites <input type="checkbox"/> C. Hydrostatic Testing of Pipelines and Tanks <input type="checkbox"/> D. Long-Term Remediation of Contaminated Sumps and Dikes <input type="checkbox"/> E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) <input type="checkbox"/> |
|---------------------------------------|---|

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

| | | | |
|---|--|---|--|
| a) Describe the discharge activities for which the owner/applicant is seeking coverage: | | | |
| DEWATERING FOR CONSTRUCTION OF NEW BUILDING FOUNDATION, DISCHARGE TO STORM DRAIN SYSTEM THATS LEADS TO WELLINGTON AND ALEWIFE BROOKS | | | |
| b) Provide the following information about each discharge: | | | |
| 1) Number of discharge points: | 2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? | | |
| 1 | Max. flow <input type="text" value="0.0896"/> Is maximum flow a design value ? Y <input type="radio"/> N <input checked="" type="radio"/> Average flow (include units) <input type="text" value="0.0448"/> Is average flow a design value or estimate? <input type="text" value="estimate"/> | | |
| 3) Latitude and longitude of each discharge within 100 feet: | | | |
| pt.1: lat. | <input type="text" value="42° 23' 10\"/> | long. | <input type="text" value="71° 07' 52\"/> |
| pt.2: lat. | <input type="text"/> | long. | <input type="text"/> |
| pt.3: lat. | <input type="text"/> | long. | <input type="text"/> |
| pt.4: lat. | <input type="text"/> | long. | <input type="text"/> |
| pt.5: lat. | <input type="text"/> | long. | <input type="text"/> |
| pt.6: lat. | <input type="text"/> | long. | <input type="text"/> |
| pt.7: lat. | <input type="text"/> | long. | <input type="text"/> |
| pt.8: lat. | <input type="text"/> | long. | <input type="text"/> |
| etc. | | | |
| 4) If hydrostatic testing, total volume of the discharge (gals): <input type="text"/> | | 5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> ? Is discharge ongoing? Y <input checked="" type="radio"/> N <input type="radio"/> | |
| c) Expected dates of discharge (mm/dd/yy): start <input type="text" value="Sep 1, 2015"/> end <input type="text" value="Jul 1, 2016"/> | | | |
| d) Please attach a line drawing or flow schematic showing water flow through the facility including: | | | |
| 1. sources of intake water. 2. contributing flow from the operation. 3. treatment units. and 4. discharge points and receiving waters(s). | | | |
| 1) Groundwater, 2) Pump to Frac Tank, 3) Sediment Filter & 2-200lb GAC Units, 4) Storm Drain, 5) Wellington Brook to Alewife Brook to Mystic River to Boston Harbor | | | |

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

| <u>Parameter *</u> | <u>CAS Number</u> | <u>Believed Absent</u> | <u>Believed Present</u> | <u># of Samples</u> | <u>Sample Type (e.g., grab)</u> | <u>Analytical Method Used (method #)</u> | <u>Minimum Level (ML) of Test Method</u> | <u>Maximum daily value</u> | | <u>Average daily value</u> | |
|---|---|-------------------------------------|-------------------------------------|---------------------|---------------------------------|--|--|-----------------------------|------------------|-----------------------------|------------------|
| | | | | | | | | <u>concentration (ug/l)</u> | <u>mass (kg)</u> | <u>concentration (ug/l)</u> | <u>mass (kg)</u> |
| 1. Total Suspended Solids (TSS) | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1 | Grab | 2540 | 2,000 ug/L | 10,000 | | | |
| 2. Total Residual Chlorine (TRC) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 4500 | 10 ug/L | None (RL<10) | | | |
| 3. Total Petroleum Hydrocarbons (TPH) | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1 | Grab | 1664A | 5,000 ug/L | 42,000 | | | |
| 4. Cyanide (CN) | 57125 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 4500 | 10 ug/L | None (RL<10) | | | |
| 5. Benzene (B) | 71432 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 1 ug/L | None (RL<1) | | | |
| 6. Toluene (T) | 108883 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 7. Ethylbenzene (E) | 100414 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 8. (m,p,o) Xylenes (X) | 108883; 106423; 95476; 1330207 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 9. Total BTEX ² | n/a | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³ | 106934 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 504 | 10 ug/L | None (RL<10) | | | |
| 11. Methyl-tert-Butyl Ether (MtBE) | 1634044 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 1 ug/L | None (RL<1) | | | |
| 12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol) | 75650 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

² BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

³ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

| <u>Parameter *</u> | <u>CAS Number</u> | <u>Believed Absent</u> | <u>Believed Present</u> | <u># of Samples</u> | <u>Sample Type (e.g., grab)</u> | <u>Analytical Method Used (method #)</u> | <u>Minimum Level (ML) of Test Method</u> | <u>Maximum daily value</u> | | <u>Average daily value</u> | |
|-----------------------------------|-------------------|-------------------------------------|--------------------------|---------------------|---------------------------------|--|--|-----------------------------|------------------|-----------------------------|------------------|
| | | | | | | | | <u>concentration (ug/l)</u> | <u>mass (kg)</u> | <u>concentration (ug/l)</u> | <u>mass (kg)</u> |
| 13. tert-Amyl Methyl Ether (TAME) | 9940508 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 14. Naphthalene | 91203 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 15. Carbon Tetrachloride | 56235 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 16. 1,2 Dichlorobenzene (o-DCB) | 95501 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 17. 1,3 Dichlorobenzene (m-DCB) | 541731 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 18. 1,4 Dichlorobenzene (p-DCB) | 106467 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 18a. Total dichlorobenzene | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 19. 1,1 Dichloroethane (DCA) | 75343 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 20. 1,2 Dichloroethane (DCA) | 107062 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 21. 1,1 Dichloroethene (DCE) | 75354 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 22. cis-1,2 Dichloroethene (DCE) | 156592 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 23. Methylene Chloride | 75092 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 24. Tetrachloroethene (PCE) | 127184 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 25. 1,1,1 Trichloro-ethane (TCA) | 71556 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 26. 1,1,2 Trichloro-ethane (TCA) | 79005 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |
| 27. Trichloroethene (TCE) | 79016 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | 5 ug/L | None (RL<1) | | | |

| <u>Parameter *</u> | <u>CAS Number</u> | <u>Believed Absent</u> | <u>Believed Present</u> | <u># of Samples</u> | <u>Sample Type (e.g., grab)</u> | <u>Analytical Method Used (method #)</u> | <u>Minimum Level (ML) of Test Method</u> | <u>Maximum daily value</u> | | <u>Average daily value</u> | |
|--|-------------------|-------------------------------------|--------------------------|---------------------|---------------------------------|--|--|-----------------------------|------------------|-----------------------------|------------------|
| | | | | | | | | <u>concentration (ug/l)</u> | <u>mass (kg)</u> | <u>concentration (ug/l)</u> | <u>mass (kg)</u> |
| 28. Vinyl Chloride (Chloroethene) | 75014 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | None (RL<1 ⁺) | | | | |
| 29. Acetone | 67641 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8260 | None (RL<5) | | | | |
| 30. 1,4 Dioxane | 123911 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | None (RL<250) | | | | |
| 31. Total Phenols | 108952 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
| 32. Pentachlorophenol (PCP) | 87865 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
| 33. Total Phthalates (Phthalate esters) ⁴ | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
| 34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate] | 117817 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
| 35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | | | | | |
| a. Benzo(a) Anthracene | 56553 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| b. Benzo(a) Pyrene | 50328 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| c. Benzo(b)Fluoranthene | 205992 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2 ⁺) | | | | |
| d. Benzo(k)Fluoranthene | 207089 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2 ⁺) | | | | |
| e. Chrysene | 21801 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| f. Dibenzo(a,h)anthracene | 53703 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2 ⁺) | | | | |
| g. Indeno(1,2,3-cd) Pyrene | 193395 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2 ⁺) | | | | |
| 36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2 ⁺) | | | | |

⁴ The sum of individual phthalate compounds.

| <u>Parameter *</u> | <u>CAS Number</u> | <u>Believed Absent</u> | <u>Believed Present</u> | <u># of Samples</u> | <u>Sample Type (e.g., grab)</u> | <u>Analytical Method Used (method #)</u> | <u>Minimum Level (ML) of Test Method</u> | <u>Maximum daily value</u> | | <u>Average daily value</u> | |
|--|---|-------------------------------------|--------------------------|---------------------|---------------------------------|--|--|-----------------------------|------------------|-----------------------------|------------------|
| | | | | | | | | <u>concentration (ug/l)</u> | <u>mass (kg)</u> | <u>concentration (ug/l)</u> | <u>mass (kg)</u> |
| h. Acenaphthene | 83329 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| i. Acenaphthylene | 208968 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| j. Anthracene | 120127 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| k. Benzo(ghi) Perylene | 191242 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| l. Fluoranthene | 206440 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| m. Fluorene | 86737 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| n. Naphthalene | 91203 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| o. Phenanthrene | 85018 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| p. Pyrene | 129000 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8270 | None (RL<2) | | | | |
| 37. Total Polychlorinated Biphenyls (PCBs) | 85687; 84742; 117840; 84662; 131113; 117817. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 8080 | None(RL<0. + | | | | |
| 38. Chloride | 16887006 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
| 39. Antimony | 7440360 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<10) | | | | |
| 40. Arsenic | 7440382 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<10) | | | | |
| 41. Cadmium | 7440439 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<5) | | | | |
| 42. Chromium III (trivalent) | 16065831 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<5 + | | | | |
| 43. Chromium VI (hexavalent) | 18540299 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | | | | | | |
| 44. Copper | 7440508 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<20) | | | | |
| 45. Lead | 7439921 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | 16 | | | | |
| 46. Mercury | 7439976 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 245.1 | None (RL<0.2) | | | | |
| 47. Nickel | 7440020 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<5) | | | | |
| 48. Selenium | 7782492 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<10) | | | | |
| 49. Silver | 7440224 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<5) | | | | |
| 50. Zinc | 7440666 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | None (RL<20) | | | | |
| 51. Iron | 7439896 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 | Grab | 200.7 | 800 | | | | |
| Other (describe): | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |

| Parameter * | CAS Number | Believed Absent | Believed Present | # of Samples | Sample Type (e.g., grab) | Analytical Method Used (method #) | Minimum Level (ML) of Test Method | Maximum daily value | | Average daily value | |
|-------------|------------|--------------------------|--------------------------|--------------|--------------------------|-----------------------------------|-----------------------------------|----------------------|-----------|----------------------|-----------|
| | | | | | | | | concentration (ug/l) | mass (kg) | concentration (ug/l) | mass (kg) |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

| | |
|--|--|
| <p><i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y <input checked="" type="radio"/> N <input type="radio"/></p> | <p>If yes, which metals?</p> <p>Lead</p> |
| <p><i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals?</p> <p>Metal: Lead DF: 1.01</p> <p>Metal: DF:</p> <p>Metal: DF:</p> <p>Metal: DF:</p> <p>Etc.</p> | <p>Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)?</p> <p>Y <input checked="" type="radio"/> N <input type="radio"/> If Y, list which metals:</p> <p>Lead</p> |

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Groundwater from the foundation excavation will be pumped to a frac tank, which then discharges the water through a sediment (bag) filter and two 200 lb granular activated carbon (GAC) units, then through a flow meter, and then to the storm drain at the intersection of Walden and Sherman Streets. The storm drain system discharges into Wellington Brook, which drains to Alewife Brook, which drains to the Mystic River, which discharges finally to Boston Harbor. A sample port for collection and analyses of the water samples will be installed inline after the GAC units.

| | | | | | | |
|--|--|--|--|---|--|--|
| b) Identify each applicable treatment unit (check all that apply): | Frac. tank <input checked="" type="checkbox"/> | Air stripper <input type="checkbox"/> | Oil/water separator <input type="checkbox"/> | Equalization tanks <input type="checkbox"/> | Bag filter <input checked="" type="checkbox"/> | GAC filter <input checked="" type="checkbox"/> |
| | Chlorination <input type="checkbox"/> | De-chlorination <input type="checkbox"/> | Other (please describe): | | | |

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate(s)** (gallons per minute) of the treatment system:

Average flow rate of discharge gpm Maximum flow rate of treatment system gpm
Design flow rate of treatment system gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

NONE

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

| | | | | | |
|------------------------------------|--|--|---|-----------------------------------|---|
| a) Identify the discharge pathway: | Direct to receiving water <input type="checkbox"/> | Within facility (sewer) <input type="checkbox"/> | Storm drain <input checked="" type="checkbox"/> | Wetlands <input type="checkbox"/> | Other (describe): <input type="text"/> |
|------------------------------------|--|--|---|-----------------------------------|---|

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Water from storm drain at Walden & Sherman Streets discharges to Wellington Brook, then Alewife Brook, then Mystic River, then empties into Boston Harbor

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:

1. For multiple discharges, number the discharges sequentially.
 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
- The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ☒ N ☐ If yes, for which pollutant(s)?

Is there a final TMDL? Y ☒ N ☐ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ☒ B ☐ C ☐ D ☐ E ☐ F ☐

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ☐ N ☐ Underway ☐

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat received? Y ☐ N ☐

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ☐ 2 ☒ 3 ☐

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.


7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

Lab Reports from representative groundwater samples are attached.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|-----------------------|---|
| Facility/Site Name: | 253 WALDEN STREET, CAMBRIDGE, MA |
| Operator signature: |  |
| Printed Name & Title: | STEPHAN H. LANDRY, PROJECT MANAGER, SIMMONS ENVIRONMENTAL SERVICES, INC. |
| Date: | 8/13/2015 |

B. Submission of NOI to EPA - All operators applying for coverage under this General Permit must submit a completed Notice of Intent (NOI) to EPA. Signed and completed NOI forms and attachments must be submitted to EPA-NE at:

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
ATTN: Remediation General Permit NOI Processing

or electronically mailed to NPDES.Generalpermits@epa.gov

or faxed to the EPA Office at 617-918-0505

If filling out the suggested NOI form electronically on EPA's website, the signature page must be signed and faxed or mailed to EPA at the fax number and/or address listed above.

1. Filing with the states - A copy of any NOI form filed with EPA-NE must also be filed with state agencies. The state agency may elect to develop a state specific form or other information requirements.

a) Discharges in Massachusetts - In addition to the NOI, permit applicants must submit copies of the State Application Form BRPWM 12, Request for General Permit coverage for the RGP. The application form and the Transmittal Form for Permit Application and Payment may be obtained from the Massachusetts Department of Environmental Protection (MassDEP) website at www.state.ma.us/dep. Municipalities are fee-exempt, but should send a copy of the transmittal form to that address for project tracking purposes. All applicants should keep a copy of the transmittal form and a copy of the application package for their records.

1) A copy of the NOI, the transmittal form, a copy of the check, and Form BRPWM 12 should be sent to:

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd floor
Worcester, MA 01608

2) A copy of the transmittal form and the appropriate fee should be sent to:

Massachusetts Department of Environmental Protection
P.O. Box 4062
Boston, MA 02111

Please note: Applicants for discharges in Massachusetts should note that under 310 CMR 40.000, *as a matter of state law*, the general permit only applies to discharges that are **not** subject to the

Massachusetts Contingency Plan (MCP) and 310 CMR 40.000. Therefore, discharges subject to the MCP are **not** required to fill out and submit the State Application Form BRPWM 12 or pay the state fees. However, they must submit a NOI to EPA.

b) Discharges in New Hampshire - applicants must provide a copy of the Notice of Intent to:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
P.O. Box 95
Concord, New Hampshire 03302-0095.

2. Filing with Municipalities - A copy of the NOI must be submitted to the municipality in which the proposed discharge would be located.

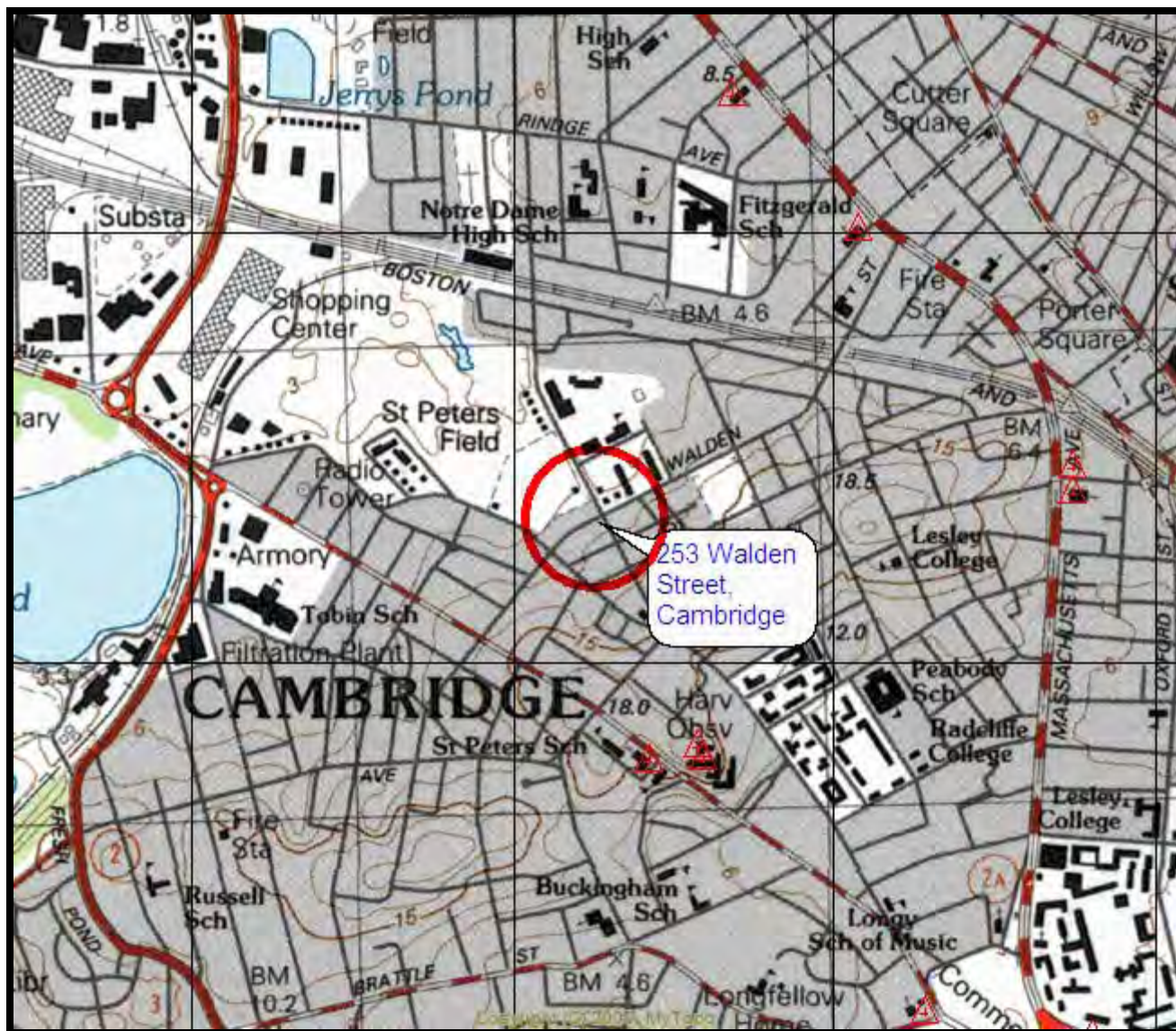

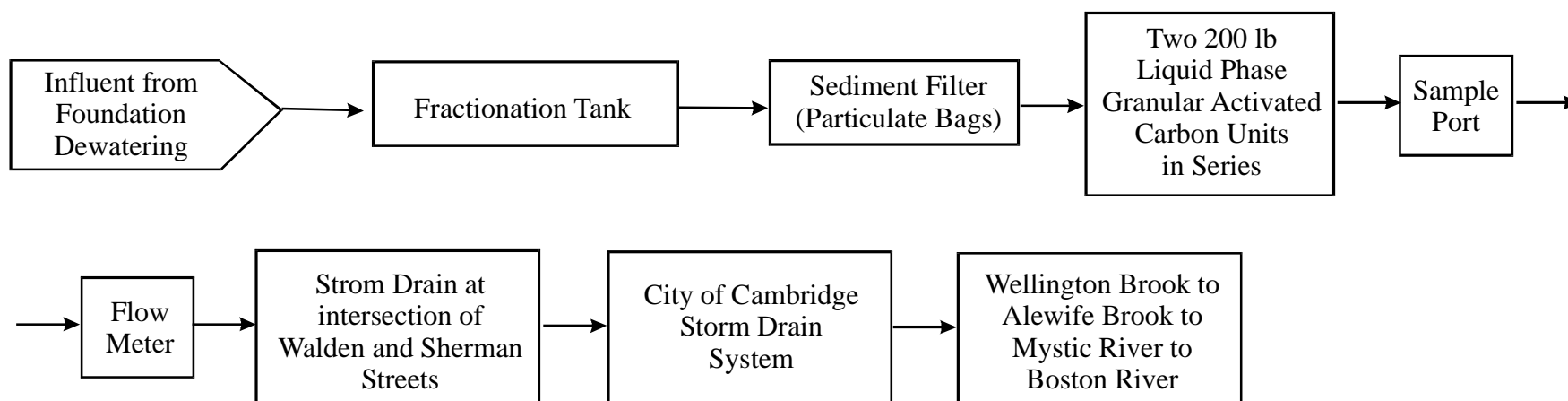


FIGURE 1
SITE LOCUS MAP

| | | |
|---|--|--------------------------|
|  | PROJECT: <div>253 WALDEN STREET</div> <div>CAMBRIDGE, MA</div> | |
| | QUADRANGLE: BOSTON NORTH | |
| LATITUDE: 42° 23' 08" N LONGITUDE: 71° 07' 51" W | UTM: 4 694 585 N 324 540 E | |
| MAP SCALE: 1:25 000 | | PROJECT #: 130805 |

Drafted: SHL

**FIGURE 3
PROCESS FLOW DIAGRAM
CONSTRUCTION DEWATERING SYSTEM**



253 WALDEN STREET, CAMBRIDGE, MA

Prepared By:

SIMMONS ENVIRONMENTAL SERVICES, INC.

213 Elm Street, Salisbury, MA 01952

(978) 463-6669 - Fax: 978-463-6679

Date: August 2015 Project #: 130805 Drafted: SHL

Water-Data Report 2006

01103025 ALEWIFE BROOK NEAR ARLINGTON, MA

MASSACHUSETTS-RHODE ISLAND COASTAL BASIN
BOSTON HARBOR SUBBASIN
MYSTIC RIVER SUBBASIN

LOCATION.--Lat 42°24'25", long 71°08'04" referenced to North American Datum of 1927, Middlesex County, MA, Hydrologic Unit 01090001, on downstream side of Broadway Street bridge at Arlington, MA.

DRAINAGE AREA.--8.36 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2005 to current year.

GAGE.--Water-stage recorder and stream-velocity sensor with satellite telemeter. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

COOPERATION.--Arlington, Belmont, Cambridge Stormwater Flooding Board.

REMARKS.--Records fair except those for estimated daily discharge, which are poor. Stage is affected by backwater from Mystic River and Amelia Earhart Dam.

01103025 ALEWIFE BROOK NEAR ARLINGTON, MA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES
[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | e3.1 | 17 | 20 | 11 | 12 | 7.9 | 4.7 | 5.5 | 9.8 | 7.7 | 7.0 | 4.9 |
| 2 | e3.1 | 16 | 13 | 10 | 11 | 5.4 | 5.2 | 10 | 9.4 | 5.9 | 5.5 | 4.1 |
| 3 | e1.6 | 13 | 11 | 11 | 16 | 6.7 | 5.5 | 13 | 19 | 7.0 | 6.2 | 6.2 |
| 4 | e1.6 | 12 | 7.9 | 12 | 20 | 6.6 | 11 | 9.8 | 36 | 8.6 | 8.0 | 6.7 |
| 5 | e1.8 | 12 | 8.8 | 10 | 38 | 6.2 | 9.4 | 5.4 | 19 | 8.9 | 6.4 | 5.2 |
| 6 | 2.1 | 12 | 8.1 | 9.9 | 26 | 5.9 | 8.0 | 6.0 | 15 | 6.2 | 5.4 | 4.5 |
| 7 | 3.3 | 14 | 7.7 | 9.0 | 17 | 5.8 | e17 | 5.5 | 51 | 7.5 | 6.2 | 3.7 |
| 8 | 6.2 | 13 | 6.9 | 8.5 | 14 | 5.3 | e17 | 5.0 | 89 | 7.2 | 4.5 | 2.7 |
| 9 | 46 | 11 | 7.2 | 8.0 | 12 | 5.2 | e12 | 10 | 46 | 6.7 | 3.0 | 3.2 |
| 10 | 19 | 17 | 7.9 | 7.7 | 13 | 4.6 | e7.7 | 26 | 37 | 5.0 | 5.3 | 3.8 |
| 11 | 9.3 | 14 | 7.9 | 7.3 | 11 | 4.9 | 4.9 | 16 | 33 | 8.3 | 3.4 | 3.2 |
| 12 | 6.7 | 11 | 7.7 | 9.8 | 11 | 4.7 | 4.8 | 11 | 22 | 15 | e6.4 | 4.0 |
| 13 | 4.7 | 8.9 | 6.9 | 8.8 | 10 | 6.8 | 4.8 | 55 | 17 | 22 | e3.9 | 4.0 |
| 14 | 10 | 9.2 | 6.3 | 16 | 8.9 | 11 | 4.6 | 125 | 15 | 11 | e4.6 | 4.9 |
| 15 | 124 | 8.4 | 6.1 | 25 | 8.2 | 8.4 | 4.5 | 95 | 20 | 9.0 | e20 | 6.5 |
| 16 | 102 | 11 | 14 | 16 | 9.1 | 7.3 | 4.3 | 82 | e18 | 6.6 | e9.8 | 4.2 |
| 17 | 47 | e21 | 18 | 12 | 11 | 5.3 | 3.9 | 60 | e16 | 6.6 | e5.9 | 2.7 |
| 18 | 21 | e14 | 12 | 20 | 9.5 | 4.4 | 4.2 | 42 | e15 | 8.2 | 2.9 | 3.5 |
| 19 | 17 | 11 | 9.9 | 27 | 8.2 | 5.8 | 3.8 | 45 | e13 | 6.5 | 6.5 | 3.8 |
| 20 | e23 | 9.9 | 8.7 | 17 | 7.6 | 5.2 | 3.8 | 40 | e11 | 6.7 | 9.6 | 8.7 |
| 21 | e35 | 8.5 | 7.8 | 13 | 5.8 | 5.3 | 3.3 | 29 | e10 | 21 | 7.5 | 5.3 |
| 22 | e52 | 31 | 7.4 | 11 | 6.2 | 3.8 | 4.0 | 22 | e10 | 36 | 4.8 | 2.7 |
| 23 | e58 | 28 | 7.0 | 10 | 7.0 | 3.9 | 5.8 | 16 | 19 | 25 | 4.5 | 5.3 |
| 24 | e41 | 15 | 6.7 | 12 | 8.0 | 3.9 | 13 | 14 | 34 | 15 | 3.6 | 4.2 |
| 25 | e141 | 12 | 6.5 | 12 | 6.8 | 4.5 | 8.2 | 13 | 21 | 9.3 | 13 | 3.6 |
| 26 | e65 | 9.6 | 17 | 12 | 6.5 | 4.4 | 4.6 | 13 | 17 | 7.8 | 9.7 | 2.9 |
| 27 | 36 | 9.5 | 21 | 11 | 5.4 | 4.1 | 4.6 | 16 | 13 | 7.9 | 7.1 | 2.5 |
| 28 | 25 | 9.1 | 14 | 9.9 | 4.4 | 5.5 | 5.5 | 12 | 11 | 12 | 12 | 4.4 |
| 29 | 20 | 8.6 | 14 | 11 | --- | 3.9 | 4.6 | 10 | 10 | 18 | 7.5 | 3.9 |
| 30 | 23 | 16 | 16 | 15 | --- | 3.7 | 4.4 | 9.0 | 9.2 | 11 | 6.1 | 3.0 |
| 31 | 18 | --- | 13 | 14 | --- | 3.8 | --- | 8.5 | --- | 7.6 | 4.7 | --- |
| Total | 966.5 | 402.7 | 326.4 | 386.9 | 323.6 | 170.2 | 199.1 | 829.7 | 665.4 | 341.2 | 211.0 | 128.3 |
| Mean | 31.2 | 13.4 | 10.5 | 12.5 | 11.6 | 5.49 | 6.64 | 26.8 | 22.2 | 11.0 | 6.81 | 4.28 |
| Max | 141 | 31 | 21 | 27 | 38 | 11 | 17 | 125 | 89 | 36 | 20 | 8.7 |
| Min | 1.6 | 8.4 | 6.1 | 7.3 | 4.4 | 3.7 | 3.3 | 5.0 | 9.2 | 5.0 | 2.9 | 2.5 |
| Cfsm | 3.73 | 1.61 | 1.26 | 1.49 | 1.38 | 0.66 | 0.79 | 3.20 | 2.65 | 1.32 | 0.81 | 0.51 |
| In. | 4.30 | 1.79 | 1.45 | 1.72 | 1.44 | 0.76 | 0.89 | 3.69 | 2.96 | 1.52 | 0.94 | 0.57 |

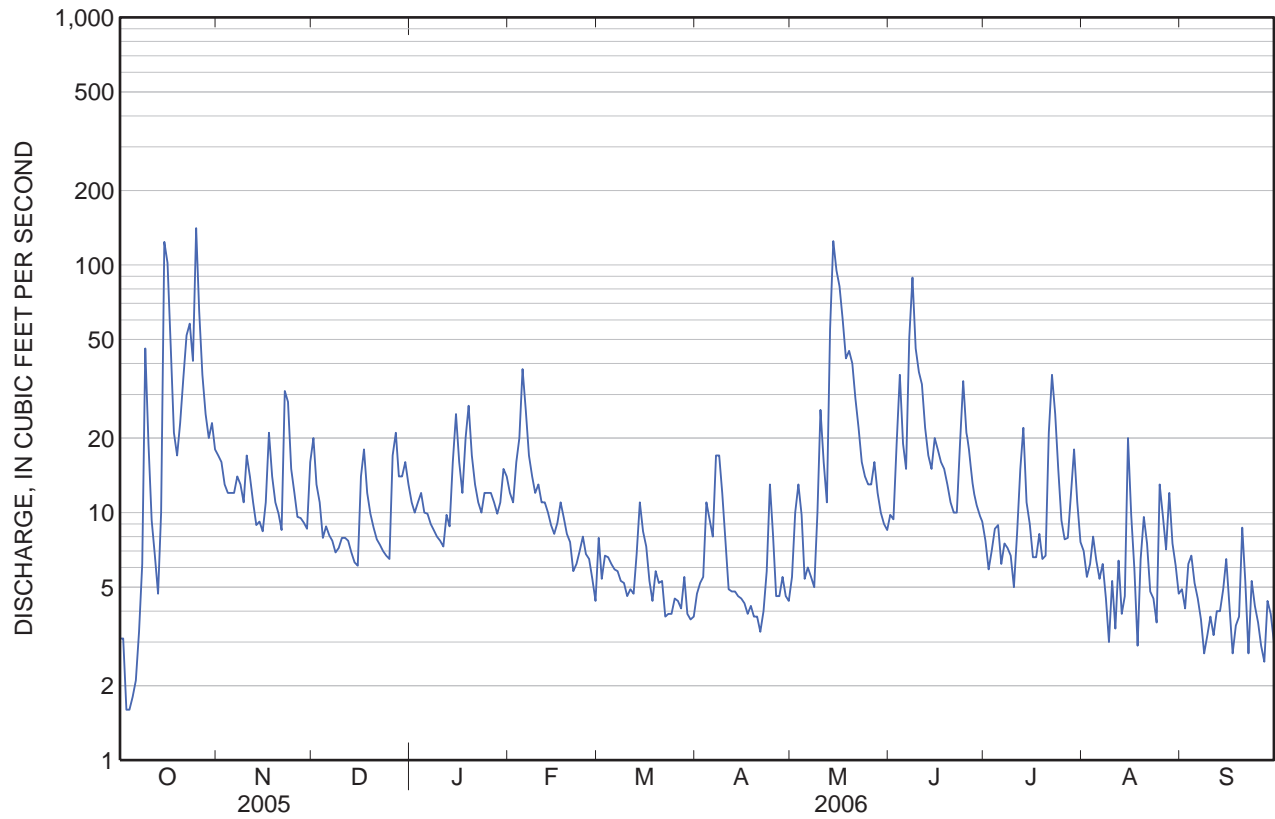
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2005 - 2006, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 31.2 | 13.4 | 10.5 | 12.5 | 11.6 | 5.49 | 6.64 | 26.8 | 22.2 | 11.0 | 6.81 | 4.28 |
| Max | 31.2 | 13.4 | 10.5 | 12.5 | 11.6 | 5.49 | 6.64 | 26.8 | 22.2 | 11.0 | 6.81 | 4.28 |
| (WY) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) |
| Min | 31.2 | 13.4 | 10.5 | 12.5 | 11.6 | 5.49 | 6.64 | 26.8 | 22.2 | 11.0 | 6.81 | 4.28 |
| (WY) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) | (2006) |

01103025 ALEWIFE BROOK NEAR ARLINGTON, MA—Continued

SUMMARY STATISTICS

| | Water Year 2006 | | Water Years 2005 - 2006 | |
|--------------------------|-----------------|--------|-------------------------|--------------|
| Annual total | 4,951.0 | | | |
| Annual mean | 13.6 | | 13.6 | |
| Highest annual mean | | | 13.6 | 2006 |
| Lowest annual mean | | | 13.6 | 2006 |
| Highest daily mean | 141 | Oct 25 | 141 | Oct 25, 2005 |
| Lowest daily mean | 1.6 | Oct 3 | 1.3 | Sep 26, 2005 |
| Annual seven-day minimum | 2.4 | Oct 1 | 2.4 | Oct 1, 2005 |
| Maximum peak flow | 193 | Oct 15 | 193 | Oct 15, 2005 |
| Maximum peak stage | 5.82 | May 14 | 5.82 | May 14, 2006 |
| Instantaneous low flow | 0.84 | Sep 27 | 0.84 | Sep 27, 2006 |
| Annual runoff (cfs) | 1.62 | | 1.62 | |
| Annual runoff (inches) | 22.03 | | 22.05 | |
| 10 percent exceeds | 25 | | 25 | |
| 50 percent exceeds | 8.9 | | 8.9 | |
| 90 percent exceeds | 4.0 | | 4.0 | |



- [Species Reports](#)>
- [Listings and Occurrences for each State](#)>
- Listings and occurrences for Massachusetts

Listings and occurrences for Massachusetts

Notes:

- This report shows the listed species associated in some way with this state.
- This list does not include experimental populations and similarity of appearance listings.
- This list includes non-nesting sea turtles and whales in State/Territory coastal waters.
- This list includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.
- Click on the highlighted scientific names below to view a Species Profile for each listing.

Summary of Animals listings

Animal species listed in this state and that occur in this state (17 species)

| Status | Species |
|------------------------|--|
| E | Beetle, American burying Entire (Nicrophorus americanus) |
| T | Plover, piping except Great Lakes watershed (Charadrius melodus) |
| E | Plymouth Red-Bellied Turtle Entire (Pseudemys rubriventris bangsi) |
| E | Sea turtle, hawksbill Entire (Eretmochelys imbricata) |
| E | Sea turtle, Kemp's ridley Entire (Lepidochelys kempii) |
| E | Sea turtle, leatherback Entire (Dermochelys coriacea) |
| E | Sturgeon, shortnose Entire (Acipenser brevirostrum) |
| E | Tern, roseate northeast U.S. nesting pop. (Sterna dougallii dougallii) |
| T | Tiger beetle, Northeastern beach Entire (Cicindela dorsalis dorsalis) |
| T | Tiger beetle, Puritan Entire (Cicindela puritana) |
| T | Turtle, bog (=Muhlenberg) northern (Clemmys muhlenbergii) |
| E | Wedgemussel, dwarf Entire (Alasmidonta heterodon) |
| E | Whale, blue Entire (Balaenoptera musculus) |
| E | Whale, finback Entire (Balaenoptera physalus) |
| E | Whale, humpback Entire (Megaptera novaeangliae) |
| E | Whale, North Atlantic Right Entire (Eubalaena glacialis) |
| E | Whale, Sei Entire (Balaenoptera borealis) |

Animal species listed in this state that do not occur in this state (3 species)

| Status | Species |
|------------------------|---|
| E | Butterfly, Karner blue Entire (Lycaeides melissa samuelis) |
| E | Puma (=cougar), eastern Entire (Puma (=Felis) concolor cougar) |
| E | Wolf, gray U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, KS, KY, LA, MA, MD, ME, MO, MS, NC, NE, NH, NJ, NV, NY, OK, PA, RI, SC, TN, VA, VT and WV; those portions of AZ, NM, and TX not included in an experimental population; and portions of IA, IN, IL, ND, OH, OR, SD, UT, and WA. Mexico. (Canis lupus) |

Animal listed species occurring in this state that are not listed in this state (1 species)

Status**Species**

T Sea turtle, green Except where endangered ([*Chelonia mydas*](#))

Summary of Plant listings

Plant species listed in this state and that occur in this state (3 species)

Status**Species**

E Bulrush, Northeastern ([*Scirpus ancistrochaetus*](#))

E Gerardia, sandplain ([*Agalinis acuta*](#))

T Pogonia, small whorled ([*Isotria medeoloides*](#))

Plant species listed in this state that do not occur in this state (2 species)

Status**Species**

T Amaranth, seabeach ([*Amaranthus pumilus*](#))

E Chaffseed, American ([*Schwalbea americana*](#))

**Pre-Treatment Groundwater Analyses
for EPA RGP
253 Walden Street
Cambridge, MA**

| | Site / Excavation | RGP |
|---------------------------------------|-------------------|----------|
| | Groundwater | Limits |
| Cyanide | <10 | 5.2 |
| Total Suspended Solids (ug/L) | 10 | 30 |
| Total Residual Chlorine (ug/L) | <10 | 11 |
| pH (S.U.) | 2.03 | 2 to 12 |
| Oil & Grease (ug/L) | 42,000 | 5,000 |
| C9-C19 Aliphatics | 257 | 5,000 |
| Total Metals (ug/L) | | |
| Arsenic | <10 | 10 |
| Antimony | <10 | 5.6 |
| Beryllium | <5 | None |
| Cadmium | <5 | 0.2 |
| Chromium | <5 | <48.8 |
| Hexavalent Chromium | <10 | <11.4 |
| Copper | <20 | 5.2 |
| Lead | 16 | 1.3 |
| Iron | 800 | 1,000 |
| Mercury | <0.2 | 0.9 |
| Nickel | <5 | 29 |
| Selenium | <10 | 5 |
| Silver | <5 | 1.2 |
| Thallium | <2 | None |
| Zinc | <20 | 66.6 |
| VOCs | | |
| Benzene | <1 | 5 |
| Ethylbenzene | <1 | 100 |
| Toluene | <1 | 100 |
| Xylenes | <2 | 100 |
| Naphthalene | <2 | 20 |
| EDB | <10 | <0.05 |
| All Other VOCs | ND | <1 to <5 |
| PAHs (ug/L) | | |
| Group 1 Total | <2 | <10 |
| Group 2 Total | <2 | <100 |
| PCBs (ug/L) | <0.2 | 0.000064 |

< or ND = None detected above laboratory method detection limit

Simmons Environmental Services, Inc.
213 Elm Street, Salisbury, MA 01952
(978) 463-6669
infor@simmons21e.com
slandryses@gmail.com

Observatory Hill Apartments, LLC
Eric Hoagland, Manager
195 Lexington Street
Cambridge, MA 02138
(857) 998-0836



REPORT OF ANALYTICAL RESULTS

NETLAB Case Number A0829-20

Prepared for:

Simmons Environmental
213 Elm Street
Salisbury, MA 01952

Report Date: September 9, 2014

Director
New England Testing Laboratory, Inc.
Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.

1254 Douglas Avenue, North Providence, RI 02904

(401) 353-3420

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc.

Project #: 130805

Project Location: 253 Walden Street

RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
A0829-20

Matrices: ☒ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocol (check all that apply below):

| | | | | | |
|---|--|---|--|---|--|
| 8260 VOC CAM II A <input type="checkbox"/> | 7470/7471 Hg CAM III B <input type="checkbox"/> | MassDEP VPH CAM IV A <input checked="" type="checkbox"/> | 8081 Pesticides CAM V B <input type="checkbox"/> | 7196 Hex Cr CAM VI B <input type="checkbox"/> | MassDEP APH CAM IX A <input type="checkbox"/> |
| 8270 SVOC CAM II B <input type="checkbox"/> | 7010 Metals CAM III C <input type="checkbox"/> | MassDEP EPH CAM IV B <input checked="" type="checkbox"/> | 8151 Herbicides CAM V C <input type="checkbox"/> | 8330 Explosives CAM VIII A <input type="checkbox"/> | TO-15 VOC CAM IX B <input type="checkbox"/> |
| 6010 Metals CAM III A <input type="checkbox"/> | 6020 Metals CAM III D <input type="checkbox"/> | 8082 PCB CAM V A <input type="checkbox"/> | 9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/> | 6860 Perchlorate CAM VIII B <input type="checkbox"/> | |

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

| | | | |
|----------|--|--------------|----------|
| A | Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times? | x Yes | No |
| B | Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed? | x Yes | No |
| C | Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances? | x Yes | No |
| D | Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? | x Yes | No |
| E | VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method? | x Yes Yes | No No |
| F | Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)? | x Yes | No |

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

| | | | |
|----------|---|-------|-----------------|
| G | Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)? | x Yes | No ¹ |
|----------|---|-------|-----------------|

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

| | | | |
|----------|--|-------|-----------------|
| H | Were all QC performance standards specified in the CAM protocol(s) achieved? | x Yes | No ¹ |
| I | Were results reported for the complete analyte list specified in the selected CAM protocol(s)? | x Yes | No ¹ |

¹All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Richard Warila

Position: Laboratory Director

Printed Name: Richard Warila

Date: 9/2/2014

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on August 29, 2014. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is A0829-20.

Custody records are included in this report.

Site: 253 Walden Street

TABLE I, Samples Submitted

| Sample ID | Date Sampled | Matrix | Analysis Requested |
|------------------------|--------------|--------|--------------------|
| | | | |
| Excavation Groundwater | 8/29/14 | Water | Table II |

TABLE II, Analysis and Methods

| ANALYSIS | PREPARATION METHOD | DETERMINATIVE METHOD |
|----------|--------------------|----------------------|
| EPH | NA | ** |
| VPH | NA | * |

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP.

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP.

CASE NARRATIVE:

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

EPH

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

VPH

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

| | | | | |
|-----------------------|--------------------------|-------------------|----------|----------|
| Matrix | X Aqueous | Soil | Sediment | Other: |
| Containers | X Satisfactory | Broken | Leaking: | |
| Aqueous Preservatives | N/A | X pH<2 | pH>2 | Comment: |
| Temperature | X Received on Ice | Received at 4 ° C | Other: | |
| Extraction Method | Water: Separatory Funnel | Soil: N/A | | |

EPH ANALYTICAL RESULTS

| | | | | |
|--|------------------------|-------------------|--------------|------------------------|
| Method for Ranges: MADEP EPH 04-1.1 | | Client ID | | Excavation Groundwater |
| Method for Target Analytes: | | Lab ID | | A0829-20 |
| EPH Surrogate Standards | | Date Collected | | 8/28/14 |
| Aliphatic: Chlorooctadecane | | Date Received | | 8/29/14 |
| Aromatic: o-Terphenyl | | Date Extracted | | 9/4/14 |
| EPH Fractionation Surrogates | | Date Analyzed | | 9/4/14, 9/5/14 |
| 2-Fluorobiphenyl | | Dilution Factor | | 1X |
| 2-Bromonaphthalene | | % Moisture (soil) | | N/A |
| RANGE/TARGET ANALYTE | | RL | Units | |
| Unadjusted C11-C22 Aromatics ¹ | | 150 | ug/L | <150 |
| Diesel PAH Analytes | Naphthalene | 1.0 | ug/L | <1.0 |
| | 2-Methylnaphthalene | 1.0 | ug/L | <1.0 |
| | Phenanthrene | 1.0 | ug/L | <1.0 |
| | Acenaphthene | 5.0 | ug/L | <5.0 |
| Other Target PAH Analytes | Acenaphthylene | 1.0 | ug/L | <1.0 |
| | Fluorene | 5.0 | ug/L | <5.0 |
| | Anthracene | 5.0 | ug/L | <5.0 |
| | Fluoranthene | 5.0 | ug/L | <5.0 |
| | Pyrene | 5.0 | ug/L | <5.0 |
| | Benzo(a)anthracene | 1.0 | ug/L | <1.0 |
| | Chrysene | 2.0 | ug/L | <2.0 |
| | Benzo(b)fluoranthene | 1.0 | ug/L | <1.0 |
| | Benzo(k)fluoranthene | 1.0 | ug/L | <1.0 |
| | Benzo(a)pyrene | 0.2 | ug/L | <0.2 |
| | Indeno(1,2,3-cd)pyrene | 0.5 | ug/L | <0.5 |
| | Dibenzo(a,h)anthracene | 0.5 | ug/L | <0.5 |
| | Benzo(g,h,i)perylene | 5.0 | ug/L | <5.0 |
| C9-C18 Aliphatic Hydrocarbons ¹ | | 200 | ug/L | <200 |
| C19-C36 Aliphatic Hydrocarbons ¹ | | 200 | ug/L | 256 |
| C11-C22 Aromatic Hydrocarbons ^{1,2} | | 150 | ug/L | <150 |
| Aliphatic Surrogate % Recovery | | | | 65 |
| Aromatic Surrogate % Recovery | | | | 91 |
| Sample Surrogate Acceptance Range | | | | 40-140% |
| Fractionation Surrogate % Recovery | | | | 94 |
| Fractionation Surrogate % Recovery | | | | 56 |
| Fractionation Surrogate Acceptance Range | | | | 40-140% |
| ¹ Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range | | | | |
| ² C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes | | | | |

CERTIFICATION

| | | |
|--|---|---|
| Were all QA/QC procedures REQUIRED by the EPH Method followed? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No-Details Attached |
| Were all performance/acceptance standards for the required QA/QC procedures achieved? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No-Details Attached |
| Were any significant modifications made to the EPH method, as specified in Section 11.3? | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes-Details Attached |

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: Richard Warila POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 9/8/2014

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

| | | | | |
|-----------------------|--------------------------|-------------------|----------|----------|
| Matrix | X Aqueous | Soil | Sediment | Other: |
| Containers | Satisfactory | Broken | Leaking: | |
| Aqueous Preservatives | N/A | pH<2 | pH>2 | Comment: |
| Temperature | Received on Ice | Received at 4 ° C | Other: | |
| Extraction Method | Water: Separatory Funnel | Soil: N/A | | |

EPH ANALYTICAL RESULTS

| | | | | |
|--|------------------------|-------------------|--------------|----------------|
| Method for Ranges: MADEP EPH 04-1.1 | | Client ID | | Method Blank |
| Method for Target Analytes: | | Lab ID | | A0829-20 |
| EPH Surrogate Standards | | Date Collected | | NA |
| Aliphatic: Chlorooctadecane | | Date Received | | NA |
| Aromatic: o-Terphenyl | | Date Extracted | | 9/4/14 |
| EPH Fractionation Surrogates | | Date Analyzed | | 9/4/14, 9/5/14 |
| 2-Fluorobiphenyl | | Dilution Factor | | 1X |
| 2-Bromonaphthalene | | % Moisture (soil) | | N/A |
| RANGE/TARGET ANALYTE | | RL | Units | |
| Unadjusted C11-C22 Aromatics ¹ | | 150 | ug/L | <150 |
| Diesel PAH Analytes | Naphthalene | 1.0 | ug/L | <1.0 |
| | 2-Methylnaphthalene | 1.0 | ug/L | <1.0 |
| | Phenanthrene | 1.0 | ug/L | <1.0 |
| | Acenaphthene | 5.0 | ug/L | <5.0 |
| Other Target PAH Analytes | Acenaphthylene | 1.0 | ug/L | <1.0 |
| | Fluorene | 5.0 | ug/L | <5.0 |
| | Anthracene | 5.0 | ug/L | <5.0 |
| | Fluoranthene | 5.0 | ug/L | <5.0 |
| | Pyrene | 5.0 | ug/L | <5.0 |
| | Benzo(a)anthracene | 1.0 | ug/L | <1.0 |
| | Chrysene | 2.0 | ug/L | <2.0 |
| | Benzo(b)fluoranthene | 1.0 | ug/L | <1.0 |
| | Benzo(k)fluoranthene | 1.0 | ug/L | <1.0 |
| | Benzo(a)pyrene | 0.2 | ug/L | <0.2 |
| | Indeno(1,2,3-cd)pyrene | 0.5 | ug/L | <0.5 |
| | Dibenzo(a,h)anthracene | 0.5 | ug/L | <0.5 |
| | Benzo(g,h,i)perylene | 5.0 | ug/L | <5.0 |
| C9-C18 Aliphatic Hydrocarbons ¹ | | 200 | ug/L | <200 |
| C19-C36 Aliphatic Hydrocarbons ¹ | | 200 | ug/L | <200 |
| C11-C22 Aromatic Hydrocarbons ^{1,2} | | 150 | ug/L | <150 |
| Aliphatic Surrogate % Recovery | | | | 63 |
| Aromatic Surrogate % Recovery | | | | 90 |
| Sample Surrogate Acceptance Range | | | | 40-140% |
| Fractionation Surrogate % Recovery | | | | 106 |
| Fractionation Surrogate % Recovery | | | | 72 |
| Fractionation Surrogate Acceptance Range | | | | 40-140% |
| ¹ Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range | | | | |
| ² C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes | | | | |

CERTIFICATION

| | | |
|--|---|---|
| Were all QA/QC procedures REQUIRED by the EPH Method followed? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No-Details Attached |
| Were all performance/acceptance standards for the required QA/QC procedures achieved? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No-Details Attached |
| Were any significant modifications made to the EPH method, as specified in Section 11.3? | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes-Details Attached |

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: Richard Warila POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 9/8/2014

SPIKE.TXT
Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\EPHALI1.M (Chemstation Integrator)
Title :
Last Update : Wed Sep 03 09:35:11 2014
Response via : Initial Calibration

Non-Spiked Sample: J090416.D

| Spike Sample | Spike Duplicate Sample |
|------------------------------|------------------------|
| File ID : J090417.D | J090418.D |
| Sample : LEW 9-4 HX | LEWD 9-4 HX |
| Acq Time: 4 Sep 2014 7:58 pm | 4 Sep 2014 8:25 pm |

| Compound | Sample Conc | Spike Added | Spike Res | Dup Res | Spike %Rec | Dup %Rec | RPD | QC RPD | Limits % Rec |
|-----------------|-------------|-------------|-----------|---------|------------|----------|-----|--------|--------------|
| Nonane | 0.0 | 40 | 13 | 13 | 33 | 31 | 4 | 25 | 30-140 |
| Decane | 0.0 | 40 | 17 | 16 | 42 | 41 | 4 | 25 | 40-140 |
| Dodecane | 0.0 | 40 | 22 | 23 | 55 | 56 | 3 | 25 | 40-140 |
| Tetradecane | 0.0 | 40 | 24 | 30 | 60 | 74 | 21 | 25 | 40-140 |
| Hexadecane | 0.0 | 40 | 33 | 35 | 84 | 87 | 4 | 25 | 40-140 |
| Octadecane | 0.0 | 40 | 33 | 33 | 82 | 81 | 1 | 25 | 40-140 |
| Nonadecane | 0.0 | 40 | 30 | 29 | 75 | 72 | 5 | 25 | 40-140 |
| Eicosane | 0.0 | 40 | 35 | 34 | 86 | 86 | 1 | 25 | 40-140 |
| Docosane | 0.0 | 40 | 33 | 31 | 82 | 77 | 6 | 25 | 40-140 |
| Tetracosane | 0.0 | 40 | 31 | 30 | 78 | 74 | 5 | 25 | 40-140 |
| Hexacosane | 0.0 | 40 | 32 | 30 | 81 | 75 | 7 | 25 | 40-140 |
| Octacosane | 0.0 | 40 | 32 | 30 | 79 | 74 | 7 | 25 | 40-140 |
| Triacontane | 0.0 | 40 | 31 | 29 | 78 | 73 | 7 | 25 | 40-140 |
| Hexatriacontane | 0.0 | 40 | 31 | 28 | 77 | 69 | 10 | 25 | 40-140 |

- Fails Limit Check

EPHALI1.M Fri Sep 05 08:54:29 2014

Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\AROQT.M (Chemstation Integrator)
 Title :
 Last Update : Fri Sep 05 09:29:25 2014
 Response via : Initial Calibration

Non-Spiked Sample: K090423.D

| Spike Sample | Spike Duplicate Sample |
|------------------------------|------------------------|
| File ID : K090424.D | K090425.D |
| Sample : LEW 9-4 ME | LEWD 9-4 ME |
| Acq Time: 5 Sep 2014 1:45 am | 5 Sep 2014 2:11 am |

| Compound | Sample Conc | Spike Added | Spike Res | Dup Res | Spike %Rec | Dup %Rec | RPD | QC Limits RPD | Limits % Rec |
|----------------------|-------------|-------------|-----------|---------|------------|----------|-----|---------------|--------------|
| Napthalene | 0.0 | 40 | 25 | 20 | 63 | 50 | 22 | 25 | 40-140 |
| 2-Methyl Napthalene | 0.0 | 40 | 27 | 23 | 69 | 57 | 19 | 25 | 40-140 |
| Acenaphthylene | 0.0 | 40 | 34 | 32 | 85 | 79 | 8 | 25 | 40-140 |
| Acenaphthene | 0.0 | 40 | 30 | 26 | 75 | 65 | 14 | 25 | 40-140 |
| Fluorene | 0.0 | 40 | 39 | 37 | 97 | 93 | 4 | 25 | 40-140 |
| Phenanthrene | 0.0 | 40 | 40 | 39 | 101 | 97 | 4 | 25 | 40-140 |
| Anthracene | 0.0 | 40 | 41 | 43 | 103 | 108 | 4 | 25 | 40-140 |
| Fluoranthene | 0.0 | 40 | 42 | 41 | 104 | 103 | 1 | 25 | 40-140 |
| Pyrene | 0.0 | 40 | 42 | 41 | 105 | 102 | 3 | 25 | 40-140 |
| Benzo (a) Anthracene | 0.0 | 40 | 46 | 44 | 114 | 110 | 4 | 25 | 40-140 |
| Chrysene | 0.0 | 40 | 42 | 40 | 104 | 100 | 4 | 25 | 40-140 |
| Benzo (b) Flouranthe | 0.0 | 40 | 46 | 44 | 115 | 110 | 5 | 25 | 40-140 |
| Benzo(k)Flouranthene | 0.0 | 40 | 37 | 36 | 93 | 91 | 3 | 25 | 40-140 |
| Benzo(a)Pyrene | 0.0 | 40 | 41 | 40 | 104 | 100 | 3 | 25 | 40-140 |
| Indeno(1,2,3)Pyrene | 0.0 | 40 | 55 | 50 | 138 | 126 | 9 | 25 | 40-140 |
| Dibenzo(ah)Anthracen | 0.0 | 40 | 31 | 31 | 79 | 78 | 0 | 25 | 40-140 |
| Benzo(g,h,i)Perylene | 0.0 | 40 | 42 | 41 | 105 | 101 | 4 | 25 | 40-140 |

- Fails Limit Check

AROQT.M

Fri Sep 05 09:47:06 2014

RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

| | | | |
|----------------------|---|---|--|
| Matrix | <input checked="" type="checkbox"/> Aqueous <input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Other: | | |
| Containers | <input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Broken <input type="checkbox"/> Leaking: | | |
| Sample Preservatives | Aqueous | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> pH≤2 <input type="checkbox"/> pH>2 Comment: | |
| | Soil or Sediment | <input type="checkbox"/> N/A <input type="checkbox"/> Samples NOT preserved Methanol or air-tight container | |
| | | <input type="checkbox"/> Samples rec'd in Methanol: <input type="checkbox"/> covering soil <input type="checkbox"/> not covering soil | |
| | | <input type="checkbox"/> Samples received in air-tight container: | |
| Temperature | <input checked="" type="checkbox"/> Received on Ice <input checked="" type="checkbox"/> Received at 4° C <input type="checkbox"/> Other: | | |

VPH ANALYTICAL RESULTS

| | | | | |
|---|---------------|-------------------|-------|------------------------|
| Method for Ranges: MADEP VPH 04-1.1 | | Client ID | | Excavation Groundwater |
| Method for Target Analytes: | | Lab ID | | A0829-20 |
| VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene | | Date Collected | | 8/29/14 |
| | | Date Received | | 8/29/14 |
| | | Date Analyzed | | 9/2/14 |
| | | Dilution Factor | | 1X |
| | | % Moisture (soil) | | NA |
| Range/Target Analyte | Elution Range | RL | Units | |
| Unadjusted C5-C8 Aliphatics ¹ | N/A | 50 | ug/L | <50 |
| Unadjusted C9-C12 Aliphatics ¹ | N/A | 50 | ug/L | <50 |
| Benzene | C5-C8 | 5.0 | ug/L | <5.0 |
| Ethylbenzene | C9-C12 | 5.0 | ug/L | <5.0 |
| Methyl-tert-butylether | C5-C8 | 10 | ug/L | <10 |
| Naphthalene | N/A | 10 | ug/L | <10 |
| Toluene | C5-C8 | 5.0 | ug/L | <5.0 |
| m- & p- Xylenes | C9-C12 | 10 | ug/L | <10 |
| o-Xylene | C9-C12 | 10 | ug/L | <10 |
| C5-C8 Aliphatic Hydrocarbons ^{1,2} | N/A | 50 | ug/L | <50 |
| C9-C12 Aliphatic Hydrocarbons ^{1,3} | N/A | 50 | ug/L | <50 |
| C9-C10 Aromatic Hydrocarbons ¹ | N/A | 50 | ug/L | <50 |
| PID Surrogate % Recovery | | | | 103 |
| FID Surrogate % Recovery | | | | 117 |
| Surrogate Acceptance Range | | | | 70-130% |

¹Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

²C₅-C₈ Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

³C₉-C₁₂ Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C₉-C₁₀ Aromatic Hydrocarbons

CERTIFICATION

| | |
|---|--|
| Were all QA/QC procedures REQUIRED by the VPH Method followed? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No-Details Attached |
| Were all performance/acceptance standards for the required QA/QC procedures achieved? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No-Details Attached |
| Were any significant modifications made to the VPH method, as specified in Section 11.3? | <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes-Details Attached |
| <i>I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.</i> | |
| SIGNATURE: <u>Richard Warila</u> | POSITION: <u>Laboratory Director</u> |
| PRINTED NAME: <u>Richard Warila</u> | DATE: <u>9/8/2014</u> |

SAMPLE INFORMATION

| | | | |
|----------------------|---|---|--|
| Matrix | <input checked="" type="checkbox"/> Aqueous <input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Other: | | |
| Containers | <input type="checkbox"/> Satisfactory <input type="checkbox"/> Broken <input type="checkbox"/> Leaking: | | |
| Sample Preservatives | Aqueous | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> pH<2 <input type="checkbox"/> pH>2 Comment: | |
| | Soil or Sediment | <input type="checkbox"/> N/A <input type="checkbox"/> Samples NOT preserved Methanol or air-tight container | |
| | | <input type="checkbox"/> Samples rec'd in Methanol: <input type="checkbox"/> covering soil <input type="checkbox"/> not covering soil | |
| | | <input type="checkbox"/> Samples received in air-tight container: | |
| Temperature | <input type="checkbox"/> Received on Ice <input type="checkbox"/> Received at 4° C <input type="checkbox"/> Other: | | |

VPH ANALYTICAL RESULTS


| | | | | | |
|--|----------------------|-------------------|--------------|--------------|--|
| Method for Ranges: MADEP VPH 04-1.1 | | Client ID | | Method Blank | |
| Method for Target Analytes: | | Lab ID | | A0829-20 | |
| VPH Surrogate Standards | | Date Collected | | NA | |
| PID: 2,5- Dibromotoluene | | Date Received | | NA | |
| FID: 2,5- Dibromotoluene | | Date Analyzed | | 9/2/14 | |
| | | Dilution Factor | | 1X | |
| | | % Moisture (soil) | | NA | |
| Range/Target Analyte | Elution Range | RL | Units | | |
| Unadjusted C5-C8 Aliphatics ¹ | N/A | 50 | ug/L | <50 | |
| Unadjusted C9-C12 Aliphatics ¹ | N/A | 50 | ug/L | <50 | |
| Benzene | C5-C8 | 5.0 | ug/L | <5.0 | |
| Ethylbenzene | C9-C12 | 5.0 | ug/L | <5.0 | |
| Methyl-tert-butylether | C5-C8 | 10 | ug/L | <10 | |
| Naphthalene | N/A | 10 | ug/L | <10 | |
| Toluene | C5-C8 | 5.0 | ug/L | <5.0 | |
| m- & p- Xylenes | C9-C12 | 10 | ug/L | <10 | |
| o-Xylene | C9-C12 | 10 | ug/L | <10 | |
| C5-C8 Aliphatic Hydrocarbons ^{1,2} | N/A | 50 | ug/L | <50 | |
| C9-C12 Aliphatic Hydrocarbons ^{1,3} | N/A | 50 | ug/L | <50 | |
| C9-C10 Aromatic Hydrocarbons ¹ | N/A | 50 | ug/L | <50 | |
| PID Surrogate % Recovery | | | | 105 | |
| FID Surrogate % Recovery | | | | 127 | |
| Surrogate Acceptance Range | | | | 70-130% | |

¹Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

²C₅-C₈ Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

³C₉-C₁₂ Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C₉-C₁₀ Aromatic Hydrocarbons

CERTIFICATION

| | |
|---|--|
| Were all QA/QC procedures REQUIRED by the VPH Method followed? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No-Details Attached |
| Were all performance/acceptance standards for the required QA/QC procedures achieved? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No-Details Attached |
| Were any significant modifications made to the VPH method, as specified in Section 11.3? | <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes-Details Attached |
| <i>I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.</i> | |
| SIGNATURE: <u></u> | POSITION: <u>Laboratory Director</u> |
| PRINTED NAME: <u>Richard Warila</u> | DATE: <u>9/8/2014</u> |

090214
Spike Recovery and RPD Summary Report -

Method : C:\HPCHEM\1\METHODS\VPH2.M (Chemstation Integrator)
 Title :
 Last Update : Fri Aug 22 09:46:54 2014
 Response via : Initial Calibration

Non-Spiked Sample: D090206.D

| Spike Sample | Spike Duplicate Sample |
|-----------------------------|------------------------|
| File ID : D090203.D | D090204.D |
| Sample : LCS090214 | LCSD090214 |
| Acq Time: 2 Sep 14 12:29 pm | 2 Sep 14 1:13 pm |

| Compound | Sample Conc | Spike Added | Spike Res | Dup Res | Spike %Rec | Dup %Rec | RPD | QC RPD | Limits % Rec |
|------------------------|-------------|-------------|-----------|---------|------------|----------|-----|--------|--------------|
| Pentane | 0.0 | 50 | 53 | 51 | 106 | 102 | 3 | 25 | 70-130 |
| 2-Methyl Pentane | 0.0 | 50 | 48 | 44 | 97 | 88 | 10 | 25 | 70-130 |
| 2,2,4-trimethyl penta | 0.0 | 50 | 43 | 40 | 86 | 79 | 9 | 25 | 70-130 |
| Nonane | 0.0 | 50 | 38 | 39 | 75 | 78 | 4 | 25 | 70-130 |
| n-decane | 0.0 | 50 | 38 | 37 | 76 | 73 | 4 | 25 | 70-130 |
| n-butyl cycl ohexane | 0.0 | 50 | 38 | 36 | 77 | 72 | 6 | 25 | 70-130 |
| MTBE #2 | 0.0 | 50 | 38 | 38 | 77 | 76 | 0 | 25 | 70-130 |
| Benzene #2 | 0.0 | 50 | 50 | 48 | 99 | 96 | 3 | 25 | 70-130 |
| Toluene #2 | 0.0 | 50 | 47 | 47 | 94 | 94 | 1 | 25 | 70-130 |
| Ethyl benzene #2 | 0.0 | 50 | 42 | 44 | 84 | 88 | 5 | 25 | 70-130 |
| M&P Xylene #2 | 0.0 | 100 | 100 | 98 | 100 | 98 | 2 | 25 | 70-130 |
| O Xylene #2 | 0.0 | 50 | 42 | 40 | 84 | 80 | 4 | 25 | 70-130 |
| 1,2,4-Tri methyl bezen | 0.0 | 50 | 38 | 38 | 76 | 76 | 0 | 25 | 70-130 |
| Naphthlene #2 | 0.0 | 50 | 41 | 39 | 81 | 79 | 3 | 25 | 70-130 |

- Fails Limit Check

VPH2.M

Tue Sep 02 15:52:27 2014

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

[illegible]

***Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve. Salmonella, Carbamates



REPORT OF ANALYTICAL RESULTS

NETLAB Case Number A1003-23

Prepared for:

Simmons Environmental
213 Elm Street
Salisbury, MA 01952

Report Date: October 14, 2014

Director
New England Testing Laboratory, Inc.
Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.

1254 Douglas Avenue, North Providence, RI 02904

(401) 353-3420

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc.

Project #: 130805

Project Location: 253 Walden Street

RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
A1003-23

Matrices: ☒ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocol (check all that apply below):

| | | | | | |
|--|---|---|---|---|--|
| 8260 VOC CAM II A <input checked="" type="checkbox"/> | 7470/7471 Hg CAM III B <input checked="" type="checkbox"/> | MassDEP VPH CAM IV A <input type="checkbox"/> | 8081 Pesticides CAM V B <input type="checkbox"/> | 7196 Hex Cr CAM VI B <input checked="" type="checkbox"/> | MassDEP APH CAM IX A <input type="checkbox"/> |
| 8270 SVOC CAM II B <input checked="" type="checkbox"/> | 7010 Metals CAM III C <input checked="" type="checkbox"/> | MassDEP EPH CAM IV B <input type="checkbox"/> | 8151 Herbicides CAM V C <input type="checkbox"/> | 8330 Explosives CAM VIII A <input type="checkbox"/> | TO-15 VOC CAM IX B <input type="checkbox"/> |
| 6010 Metals CAM III A <input checked="" type="checkbox"/> | 6020 Metals CAM III D <input type="checkbox"/> | 8082 PCB CAM V A <input checked="" type="checkbox"/> | 9014 Total Cyanide/PAC CAM VI A <input checked="" type="checkbox"/> | 6860 Perchlorate CAM VIII B <input type="checkbox"/> | Other <input checked="" type="checkbox"/> |

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

| | | | |
|----------|--|--|--|
| A | Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| B | Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| C | Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| D | Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| E | VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method? | <input type="checkbox"/> Yes <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> No |
| F | Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

| | | | |
|----------|---|---|--|
| G | Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No ¹ |
|----------|---|---|--|

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

| | | | |
|----------|--|---|--|
| H | Were all QC performance standards specified in the CAM protocol(s) achieved? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No ¹ |
| I | Were results reported for the complete analyte list specified in the selected CAM protocol(s)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No ¹ |

¹All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Richard Warila

Position: Laboratory Director

Printed Name: Richard Warila

Date: 10/7/2014

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on October 3, 2014. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is A1003-23.

Custody records are included in this report.

Site: 253 Walden Street

TABLE I, Samples Submitted

| Sample ID | Date Sampled | Matrix | Analysis Requested |
|------------------|--------------|--------|--------------------|
| | | | |
| Site Groundwater | 10/2/14 | Water | Table II |

TABLE II, Analysis and Methods

| ANALYSIS | PREPARATION METHOD | DETERMINATIVE METHOD |
|--|--------------------|----------------------|
| Cyanide | NA | SM 4500-CN-C,E |
| Hexavalent Chromium | NA | SM 3500-Cr-B |
| Semi-Volatile Organic Compounds | 3510C | 8270D |
| -PAHs only | | |
| Ethylene Dibromide & Dibromochloropropane | NA | 504.1 |
| Total Metals | | |
| Antimony | 3010A | 6010C |
| Arsenic | 3010A | 6010C |
| Beryllium | 3010A | 6010C |
| Cadmium | 3010A | 6010C |
| Chromium | 3010A | 6010C |
| Copper | 3010A | 6010C |
| Lead | 3010A | 6010C |
| Mercury | NA | 7471B |
| Nickel | 3010A | 6010C |
| Selenium | 3010A | 6010C |
| Silver | 3010A | 6010C |
| Thallium | 3010A | 6010C |
| Zinc | 3010A | 6010C |
| Oil & Grease SGT (Hydrocarbons) | NA | 1664 |
| Total Residual Chlorine | NA | 4500CL-G |
| Total Suspended Solids | NA | 2540D |
| PCB's | 3546 | 8082A |
| pH | NA | 4500H-B |
| Volatile Organic Compounds | 5030 | 8260B |

These methods are documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Metals

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

PCBs

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Semi-volatile Compounds

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

A specific compound list was reported at the request of the client.

Total Petroleum Hydrocarbons

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Volatile Organic Compounds

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Wet Chemistry

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures.

Site Groundwater

| Parameter | Result, mg/l | Reporting Limit | Date Analyzed |
|-------------------------|--------------|-----------------|-----------------|
| | | | |
| Cyanide | ND | 0.01 | 10/6/14 |
| Hexavalent Chromium | ND | 0.01 | 10/3/14 @ 17:30 |
| Oil & Grease - SGT | 42 | 2 | 10/8/14 |
| pH, S.U. | 2.03 | NA | 10/3/14 @ 17:30 |
| Total Residual Chlorine | ND | 0.01 | 10/3/14 @ 17:30 |
| Total Suspended Solids | 10 | 2 | 10/7/14 |

NA = Not Applicable

ND = Not Detected

| | | |
|-------------------------------------|------------------------------|------------------------|
| Sample: Site Groundwater | | Analyst's Initials: BJ |
| Case No. A1003-23 | | |
| Date Collected: 10/2/14 | | |
| Sample Matrix: Water | | |
| Subject: Ethylene Dibromide | | |
| Prep Method: NA | Date Extracted | Date Analyzed |
| Analytical Method: EPA 504.1 | 10/6/14 | 10/7/14 |
| | | |
| Compound | Concentration, ug/l (ppb) | Reporting Limit |
| | | |
| Ethylene Dibromide | ND | 0.01 |
| 1,2-Dibromo-3-Chloropropane | ND | 0.01 |
| | | |

ND = Not Detected

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

METALS RESULTS



Case Number: A1003-23
 Sample ID: SITE GROUNDWATER
 Date collected: 10/02/14
 Matrix: WATER
 Sample Type: TOTAL

Analyst SJC/AM/DD

| | CAS | Preparative | Analytical | | Reporting | | Date of | Date |
|-----------|-----------|-------------|------------|--------|-----------|-------|-------------|----------|
| Parameter | Number | Method | Method | Result | Limit | Units | Preparation | Analyzed |
| Antimony | 7440-36-0 | 3010A | 6010C | ND | 0.01 | mg/l | 10/6/14 | 10/8/14 |
| Arsenic | 7440-38-2 | 3010A | 6010C | ND | 0.01 | mg/l | 10/6/14 | 10/8/14 |
| Beryllium | 7440-41-7 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Cadmium | 7440-43-9 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Chromium | 7440-47-3 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Copper | 7440-50-8 | 3010A | 6010C | ND | 0.02 | mg/l | 10/6/14 | 10/8/14 |
| Lead | 7439-92-1 | 3010A | 6010C | 0.016 | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Mercury | 7439-97-6 | NA | 7471B | ND | 0.0002 | mg/l | 10/7/14 | 10/7/14 |
| Nickel | 7440-02-0 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Selenium | 7782-49-2 | 3010A | 3113B | ND | 0.01 | mg/l | 10/6/14 | 10/8/14 |
| Silver | 7440-22-4 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Thallium | 7440-28-0 | 3010A | 7010 | ND | 0.002 | mg/l | 10/6/14 | 10/9/14 |
| Zinc | 7440-66-6 | 3010A | 6010C | ND | 0.02 | mg/l | 10/6/14 | 10/8/14 |

ND indicates Not Detected.

METALS RESULTS



Sample ID: METHOD BLANK
 Matrix WATER
 Sample Type: Preparation Blank

Analyst SJC/AM/DD

| | CAS | Preparative | Analytical | | Reporting | | Date of | Date |
|-----------|-----------|-------------|------------|--------|-----------|-------|-------------|----------|
| Parameter | Number | Method | Method | Result | Limit | Units | Preparation | Analyzed |
| Antimony | 7440-36-0 | 3010A | 6010C | ND | 0.01 | mg/l | 10/6/14 | 10/8/14 |
| Arsenic | 7440-38-2 | 3010A | 6010C | ND | 0.01 | mg/l | 10/6/14 | 10/8/14 |
| Beryllium | 7440-41-7 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Cadmium | 7440-43-9 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Chromium | 7440-47-3 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Copper | 7440-50-8 | 3010A | 6010C | ND | 0.02 | mg/l | 10/6/14 | 10/8/14 |
| Lead | 7439-92-1 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Mercury | 7439-97-6 | NA | 7471B | ND | 0.0002 | mg/l | 10/7/14 | 10/7/14 |
| Nickel | 7440-02-0 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Selenium | 7782-49-2 | 3010A | 3113B | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Silver | 7440-22-4 | 3010A | 6010C | ND | 0.005 | mg/l | 10/6/14 | 10/8/14 |
| Thallium | 7440-28-0 | 3010A | 7010 | ND | 0.002 | mg/l | 10/6/14 | 10/8/14 |
| Zinc | 7440-66-6 | 3010A | 6010C | ND | 0.02 | mg/l | 10/6/14 | 10/8/14 |

ND indicates Not Detected.

LABORATORY CONTROL SAMPLE RECOVERY

| Parameter | True Value | Result | Units | Recovery, % | Internal | | Date Analyzed |
|-----------|------------|--------|-------|-------------|----------|--------|---------------|
| | | | | | LCL, % | UCL, % | |
| Antimony | 1.00 | 1.04 | mg/l | 104 | 85 | 115 | 10/8/14 |
| Arsenic | 0.20 | 0.21 | mg/l | 105 | 85 | 115 | 10/8/14 |
| Beryllium | 0.20 | 0.22 | mg/l | 111 | 85 | 115 | 10/8/14 |
| Cadmium | 1.00 | 1.03 | mg/l | 103 | 85 | 115 | 10/8/14 |
| Chromium | 1.00 | 1.10 | mg/l | 110 | 85 | 115 | 10/8/14 |
| Copper | 1.00 | 1.02 | mg/l | 102 | 85 | 115 | 10/8/14 |
| Lead | 1.00 | 1.08 | mg/l | 108 | 85 | 115 | 10/8/14 |
| Mercury | 0.001 | 0.001 | mg/l | 101 | 85 | 115 | 10/7/14 |
| Nickel | 1.00 | 1.05 | mg/l | 105 | 85 | 115 | 10/8/14 |
| Selenium | 0.20 | 0.21 | mg/l | 107 | 85 | 115 | 10/8/14 |
| Silver | 0.40 | 0.44 | mg/l | 111 | 85 | 115 | 10/8/14 |
| Thallium | 0.020 | 0.021 | mg/l | 105 | 85 | 115 | 10/9/14 |
| Zinc | 1.00 | 1.07 | mg/l | 107 | 85 | 115 | 10/8/14 |

RESULTS: PCBs

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

| | | |
|-------------------------------------|-----------------------------|-------------------------------|
| Sample: Site Groundwater | | Analyst's Initials: BJ |
| Case No. A1003-23 | | |
| Date Collected: 10/2/14 | | |
| Sample Matrix: Water | | |
| Subject: PCBs | Date Extracted | Date Analyzed |
| Prep Method: EPA 3510C | 10/6/14 | 10/8/14 |
| Analytical Method: EPA 8082A | | |
| Compound | Concentration ug/l (ppb) | Reporting Limit ug/l (ppb) |
| Aroclor-1016 | N.D. | 0.2 |
| Aroclor-1221 | N.D. | 0.2 |
| Aroclor-1232 | N.D. | 0.2 |
| Aroclor-1242 | N.D. | 0.2 |
| Aroclor-1248 | N.D. | 0.2 |
| Aroclor-1254 | N.D. | 0.2 |
| Aroclor-1260 | N.D. | 0.2 |
| Aroclor-1262 | N.D. | 0.2 |
| Aroclor-1268 | N.D. | 0.2 |
| Surrogates: | | |
| Compound | % Recovery | Limits |
| TCMX | 101 | 30-110 |
| DCBP | 98 | 30-122 |

N.D. = Not Detected

| | | |
|-------------------------------------|-----------------------------|-------------------------------|
| Sample: Method Blank | | Analyst's Initials: BJ |
| Case No. A1003-23 | | |
| Date Collected: NA | | |
| Sample Matrix: Water | | |
| Subject: PCBs | Date Extracted | Date Analyzed |
| Prep Method: EPA 3510C | 10/6/14 | 10/8/14 |
| Analytical Method: EPA 8082A | | |
| | | |
| Compound | Concentration ug/l (ppb) | Reporting Limit ug/l (ppb) |
| Aroclor-1016 | N.D. | 0.2 |
| Aroclor-1221 | N.D. | 0.2 |
| Aroclor-1232 | N.D. | 0.2 |
| Aroclor-1242 | N.D. | 0.2 |
| Aroclor-1248 | N.D. | 0.2 |
| Aroclor-1254 | N.D. | 0.2 |
| Aroclor-1260 | N.D. | 0.2 |
| Aroclor-1262 | N.D. | 0.2 |
| Aroclor-1268 | N.D. | 0.2 |
| | | |
| Surrogates: | | |
| Compound | % Recovery | Limits |
| TCMX | 101 | 30-110 |
| DCBP | 79 | 30-122 |

N.D. = Not Detected

PCB Laboratory Control Spike

| | | | | |
|---|---------------------------|-----------------|---------------|--------------------|
| Sample Matrix: Water | | | | |
| Subject: PCB | Date Extracted | | | Date Analyzed |
| Prep Method: EPA 3510C | 10/6/14 | | | 10/8/14 |
| Analytical Method: EPA 8082A | | | | |
| | | | | |
| Compound | Amount Spiked mg/kg | Result mg/kg | Recovery % | Recovery Limits |
| Aroclor 1016 | 0.500 | 0.574 | 115 | 40-130 |
| Aroclor 1260 | 0.500 | 0.576 | 115 | 41-132 |
| Surrogates: | | | | |
| Compound | % Recovery | Limits | | |
| TCMX | 102 | 30-110 | | |
| DCBP | 98 | 30-122 | | |

RESULTS: SEMIVOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| |
|------------------|
| Site Groundwater |
|------------------|

Lab Name: New England Testing Laboratory Contract: 253 Walden
 Lab Code: RI010 Case No.: A1003-23 SAS No.: Simmo SDG No.: Simmons
 Matrix: (soil/water) WATER Lab Sample ID: Site Groundwater
 Sample wt/vol: 1000 (g/ml) ML Lab File ID: B100713.D
 Level: (low/med) LOW Date Received: 10/3/2014
 % Moisture: _____ decanted:(Y/N) N Date Extracted: 10/6/2014
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/7/2014
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

| | | | |
|----------|------------------------|---|---|
| 91-20-3 | Naphthalene | 2 | U |
| 91-57-6 | 2-Methylnaphthalene | 2 | U |
| 208-96-8 | Acenaphthylene | 2 | U |
| 83-32-9 | Acenaphthene | 2 | U |
| 132-64-9 | Dibenzofuran | 2 | U |
| 86-73-7 | Fluorene | 2 | U |
| 85-01-8 | Phenanthrene | 2 | U |
| 120-12-7 | Anthracene | 2 | U |
| 206-44-0 | Fluoranthene | 2 | U |
| 129-00-0 | Pyrene | 2 | U |
| 56-55-3 | Benzo(a)anthracene | 2 | U |
| 218-01-9 | Chrysene | 2 | U |
| 205-99-2 | Benzo(b)fluoranthene | 2 | U |
| 207-08-9 | Benzo(k)fluoranthene | 2 | U |
| 50-32-8 | Benzo(a)pyrene | 2 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2 | U |
| 53-70-3 | Dibenz(a,h)anthracene | 2 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 2 | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BSW100614

Lab Name: New England Testing Laboratory Contract: 253 Walden
 Lab Code: RI010 Case No.: A1003-23 SAS No.: Simmo SDG No.: Simmons
 Matrix: (soil/water) WATER Lab Sample ID: BSW100614
 Sample wt/vol: 1000 (g/ml) ML Lab File ID: B100708.D
 Level: (low/med) LOW Date Received: 10/3/2014
 % Moisture: _____ decanted:(Y/N) N Date Extracted: 10/6/2014
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/7/2014
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

 CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

| | | | |
|----------|------------------------|---|---|
| 91-20-3 | Naphthalene | 2 | U |
| 91-57-6 | 2-Methylnaphthalene | 2 | U |
| 208-96-8 | Acenaphthylene | 2 | U |
| 83-32-9 | Acenaphthene | 2 | U |
| 132-64-9 | Dibenzofuran | 2 | U |
| 86-73-7 | Fluorene | 2 | U |
| 85-01-8 | Phenanthrene | 2 | U |
| 120-12-7 | Anthracene | 2 | U |
| 206-44-0 | Fluoranthene | 2 | U |
| 129-00-0 | Pyrene | 2 | U |
| 56-55-3 | Benzo(a)anthracene | 2 | U |
| 218-01-9 | Chrysene | 2 | U |
| 205-99-2 | Benzo(b)fluoranthene | 2 | U |
| 207-08-9 | Benzo(k)fluoranthene | 2 | U |
| 50-32-8 | Benzo(a)pyrene | 2 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2 | U |
| 53-70-3 | Dibenz(a,h)anthracene | 2 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 2 | U |

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: New England Testing Laboratory Contract: 253 Walden Stree
 Lab Code: RI010 Case No.: A1003-23 SAS No.: Simmo SDG No.: Simmons

| | EPA SAMPLE NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|----|-------------------|---------|---------|---------|---------|---------|---------|------------|
| 01 | BSW100614 | 36 | 26 | 66 | 67 | 80 | 109 | 0 |
| 02 | LSW100614 | 31 | 19 | 82 | 83 | 96 | 106 | 0 |
| 03 | SITE GROUND | 43 | 28 | 103 | 110 | 124 | 129 | 0 |

QC LIMITS

| | | | |
|----|---|----------------------|----------|
| S1 | = | 2-Fluorophenol | (10-81) |
| S2 | = | Phenol-d6 | (10-83) |
| S3 | = | Nitrobenzene-d5 | (30-130) |
| S4 | = | 2-Fluorobiphenyl | (35-130) |
| S5 | = | 2,4,6-Tribromophenol | (44-130) |
| S6 | = | Terphenyl-d14 | (50-130) |

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

Semivolatile Water Laboratory Control Spike

Date Extracted: 10/6/2014

Date Analyzed: 10/7/2014

| | Amount Spiked | Result, | Recovery | Lower Recovery | Upper Recovery |
|------------------------|---------------|---------|----------|----------------|----------------|
| | ug/L | ug/L | % | Limit | Limit |
| Naphthalene | 50.0 | 48.5 | 97 | 40 | 140 |
| 2-Methylnaphthalene | 50.0 | 49.8 | 100 | 40 | 140 |
| Acenaphylene | 50.0 | 50.8 | 102 | 40 | 140 |
| Acenaphthene | 50.0 | 50.0 | 100 | 40 | 140 |
| Fluorene | 50.0 | 55.1 | 110 | 40 | 140 |
| Phenanthrene | 50.0 | 53.9 | 108 | 40 | 140 |
| Anthracene | 50.0 | 54.8 | 110 | 40 | 140 |
| Fluoranthene | 50.0 | 57.2 | 114 | 40 | 140 |
| Pyrene | 50.0 | 55.0 | 110 | 40 | 140 |
| Benzo(a)anthracene | 50.0 | 54.1 | 108 | 40 | 140 |
| Chrysene | 50.0 | 56.7 | 113 | 40 | 140 |
| Benzo(b)fluoranthene | 50.0 | 60.3 | 121 | 40 | 140 |
| Benzo(k)fluoranthene | 50.0 | 58.9 | 118 | 40 | 140 |
| Benzo(a)pyrene | 50.0 | 55.8 | 112 | 40 | 140 |
| Indeno(1,2,3-cd)pyrene | 50.0 | 46.0 | 92 | 40 | 140 |
| Dibenz(a,h)anthracene | 50.0 | 47.7 | 95 | 40 | 140 |
| Benzo(g,h,i)perylene | 50.0 | 44.6 | 89 | 40 | 140 |

RESULTS: VOLATILE ORGANIC COMPOUNDS

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The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: A1003-23 Client Name: Simmons Environmental
 Method: 8260 Lab Sample ID: Site Groundwater
 Matrix: (soil/water) WATER Lab File ID: D100848.D
 Sample wt/vol: 5.0 (g/ml) ML Date Sampled: 10/2/2014
 % Moisture _____ Date Analyzed: 10/9/2014
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: MM Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | UNITS: <u>ug/L</u> | Q |
|------------|---------------------------|--------------------|---|
| 75-01-4 | Vinyl Chloride | 1.0 | U |
| 74-83-9 | Bromomethane | 1.0 | U |
| 75-00-3 | Chloroethane | 1.0 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U |
| 75-15-0 | Carbon Disulfide | 1.0 | U |
| 75-09-2 | Methylene Chloride | 1.0 | U |
| 1634-04-4 | tert-Butyl methyl ether | 1.0 | U |
| 156-60-5 | trans-1,2 Dichloroethene | 1.0 | U |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 594-20-7 | 2,2-Dichloropropane | 1.0 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U |
| 67-66-3 | Chloroform | 1.0 | U |
| 74-97-5 | Bromochloromethane | 1.0 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U |
| 563-58-6 | 1,1- Dichloropropene | 1.0 | U |
| 56-23-5 | Carbon Tetrachloride | 1.0 | U |
| 71-43-2 | Benzene | 1.0 | U |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U |
| 79-01-6 | Trichloroethene | 1.0 | U |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U |
| 75-27-4 | Bromodichloromethane | 1.0 | U |
| 74-95-3 | Dibromomethane | 1.0 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 106-93-4 | Ethylene Dibromide | 1.0 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U |
| 108-88-3 | Toluene | 1.0 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 1.0 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 127-18-4 | Tetrachloroethene | 1.0 | U |
| 124-48-1 | Chlorodibromomethane | 1.0 | U |
| 108-90-7 | Chlorobenzene | 1.0 | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U |

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: A1003-23 Client Name: Simmons Environmental
 Method: 8260 Lab Sample ID: Site Groundwater
 Matrix: (soil/water) WATER Lab File ID: D100848.D
 Sample wt/vol: 5.0 (g/ml) ML Date Sampled: 10/2/2014
 % Moisture _____ Date Analyzed: 10/9/2014
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: MM Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | UNITS: <u>ug/L</u> | Q |
|-----------|-----------------------------|--------------------|---|
| 100-41-4 | Ethylbenzene | 1.0 | U |
| 1330-20-7 | m & p-Xylene | 2.0 | U |
| 95-47-6 | o-Xylene | 1.0 | U |
| 100-42-5 | Styrene | 1.0 | U |
| 75-25-2 | Bromoform | 1.0 | U |
| 98-82-8 | Isopropylbenzene | 1.0 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U |
| 108-86-1 | Bromobenzene | 1.0 | U |
| 96-18-4 | 1,2,3-Trichloropropane | 1.0 | U |
| 95-49-8 | 2-Chlorotoluene | 1.0 | U |
| 103-65-1 | n-Propylbenzene | 1.0 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.0 | U |
| 106-43-4 | 4-Chlorotoluene | 1.0 | U |
| 98-06-6 | tert-Butylbenzene | 1.0 | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.0 | U |
| 135-98-8 | sec-Butylbenzene | 1.0 | U |
| 99-87-6 | p-Isopropyltoluene | 1.0 | U |
| 75-87-3 | Chloromethane | 1.0 | U |
| 75-65-0 | tert butyl alcohol | 1.0 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 | U |
| 109-99-9 | Tetrahydrofuran | 1.0 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1.0 | U |
| 60-29-7 | Diethyl Ether | 1.0 | U |
| 104-51-8 | n-butyl Benzene | 1.0 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1.0 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.0 | U |
| 87-68-3 | Hexachlorobutadiene | 1.0 | U |
| 91-20-3 | Naphthalene | 1.0 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.0 | U |
| 994-05-8 | Tert-amyl Methyl Ether | 1.0 | U |
| 75-71-8 | Dichlorodifluoromethane | 1.0 | U |
| 142-28-9 | 1,3-Dichloropropane | 1.0 | U |
| 75-69-4 | Trichlorofluoromethane | 1.0 | U |
| 637-92-3 | Ethyl Tert-butyl ether | 1.0 | U |

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: A1003-23 Client Name: Simmons Environmental
 Method: 8260 Lab Sample ID: Site Groundwater
 Matrix: (soil/water) WATER Lab File ID: D100848.D
 Sample wt/vol: 5.0 (g/ml) ML Date Sampled: 10/2/2014
 % Moisture _____ Date Analyzed: 10/9/2014
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: MM Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | UNITS: <u>ug/L</u> | Q |
|-----------------|--------------------------|--------------------|----------|
| <u>108-20-3</u> | <u>Diisopropyl Ether</u> | <u>1.0</u> | <u>U</u> |
| <u>123-91-1</u> | <u>1,4-Dioxane</u> | <u>250</u> | <u>U</u> |

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: A1003-23 Client Name: Simmons Environmental
 Method: 8260 Lab Sample ID: VBK100814-2
 Matrix: (soil/water) WATER Lab File ID: D100838.D
 Sample wt/vol: 5.0 (g/ml) ML Date Sampled: 10/2/2014
 % Moisture _____ Date Analyzed: 10/8/2014
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: MM Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | UNITS: <u>ug/L</u> | Q |
|------------|---------------------------|--------------------|---|
| 75-01-4 | Vinyl Chloride | 1.0 | U |
| 74-83-9 | Bromomethane | 1.0 | U |
| 75-00-3 | Chloroethane | 1.0 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U |
| 75-15-0 | Carbon Disulfide | 1.0 | U |
| 75-09-2 | Methylene Chloride | 1.0 | U |
| 1634-04-4 | tert-Butyl methyl ether | 1.0 | U |
| 156-60-5 | trans-1,2 Dichloroethene | 1.0 | U |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 594-20-7 | 2,2-Dichloropropane | 1.0 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U |
| 67-66-3 | Chloroform | 1.0 | U |
| 74-97-5 | Bromochloromethane | 1.0 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U |
| 563-58-6 | 1,1- Dichloropropene | 1.0 | U |
| 56-23-5 | Carbon Tetrachloride | 1.0 | U |
| 71-43-2 | Benzene | 1.0 | U |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U |
| 79-01-6 | Trichloroethene | 1.0 | U |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U |
| 75-27-4 | Bromodichloromethane | 1.0 | U |
| 74-95-3 | Dibromomethane | 1.0 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 106-93-4 | Ethylene Dibromide | 1.0 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U |
| 108-88-3 | Toluene | 1.0 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 1.0 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 127-18-4 | Tetrachloroethene | 1.0 | U |
| 124-48-1 | Chlorodibromomethane | 1.0 | U |
| 108-90-7 | Chlorobenzene | 1.0 | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U |

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: A1003-23 Client Name: Simmons Environmental
 Method: 8260 Lab Sample ID: VBLK100814-2
 Matrix: (soil/water) WATER Lab File ID: D100838.D
 Sample wt/vol: 5.0 (g/ml) ML Date Sampled: 10/2/2014
 % Moisture _____ Date Analyzed: 10/8/2014
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: MM Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | UNITS: <u>ug/L</u> | Q |
|-----------|-----------------------------|--------------------|---|
| 100-41-4 | Ethylbenzene | 1.0 | U |
| 1330-20-7 | m & p-Xylene | 2.0 | U |
| 95-47-6 | o-Xylene | 1.0 | U |
| 100-42-5 | Styrene | 1.0 | U |
| 75-25-2 | Bromoform | 1.0 | U |
| 98-82-8 | Isopropylbenzene | 1.0 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U |
| 108-86-1 | Bromobenzene | 1.0 | U |
| 96-18-4 | 1,2,3-Trichloropropane | 1.0 | U |
| 95-49-8 | 2-Chlorotoluene | 1.0 | U |
| 103-65-1 | n-Propylbenzene | 1.0 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.0 | U |
| 106-43-4 | 4-Chlorotoluene | 1.0 | U |
| 98-06-6 | tert-Butylbenzene | 1.0 | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.0 | U |
| 135-98-8 | sec-Butylbenzene | 1.0 | U |
| 99-87-6 | p-Isopropyltoluene | 1.0 | U |
| 75-87-3 | Chloromethane | 1.0 | U |
| 75-65-0 | tert butyl alcohol | 1.0 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 | U |
| 109-99-9 | Tetrahydrofuran | 1.0 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1.0 | U |
| 60-29-7 | Diethyl Ether | 1.0 | U |
| 104-51-8 | n-butyl Benzene | 1.0 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1.0 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.0 | U |
| 87-68-3 | Hexachlorobutadiene | 1.0 | U |
| 91-20-3 | Naphthalene | 1.0 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.0 | U |
| 994-05-8 | Tert-amyl Methyl Ether | 1.0 | U |
| 75-71-8 | Dichlorodifluoromethane | 1.0 | U |
| 142-28-9 | 1,3-Dichloropropane | 1.0 | U |
| 75-69-4 | Trichlorofluoromethane | 1.0 | U |
| 637-92-3 | Ethyl Tert-butyl ether | 1.0 | U |

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: A1003-23 Client Name: Simmons Environmental
 Method: 8260 Lab Sample ID: VBLK100814-2
 Matrix: (soil/water) WATER Lab File ID: D100838.D
 Sample wt/vol: 5.0 (g/ml) ML Date Sampled: 10/2/2014
 % Moisture _____ Date Analyzed: 10/8/2014
 Soil Extract Volume: _____ (uL) Dilution Factor: 1.0
 Analyst's Initials: MM Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | UNITS: <u>ug/L</u> | Q |
|----------|-------------------|--------------------|---|
| 108-20-3 | Diisopropyl Ether | 1.0 | U |
| 123-91-1 | 1,4-Dioxane | 250 | U |

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Laboratory Contract: 253 Walden Stree
 Lab Code: RI010 Case No.: A1003-23 SAS No.: SDG No.: Simmons

| | EPA SAMPLE NO. | SMC1 # | SMC2 # | SMC3 # | TOT OUT |
|----|-------------------|-----------|-----------|-----------|------------|
| 01 | VLCS100814-2 | 89 | 94 | 90 | 0 |
| 02 | VLBK100814-2 | 87 | 97 | 107 | 0 |
| 03 | SITE GROUNDWAT | 93 | 94 | 103 | 0 |

QC LIMITS

| | | | |
|------|---|-----------------------|----------|
| SMC1 | = | 4-Bromofluorobenzene | (70-130) |
| SMC2 | = | Toluene-D8 | (70-130) |
| SMC3 | = | 1,2-Dichloroethane-D4 | (70-130) |

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

New England Testing Laboratory, Inc.

Volatile Organics Laboratory Control Spike

Date Analyzed: 10/08/14

Sample ID: VLCS100814-2

| Compound | Spike Added | Spike Result | Recovery, % | Lower Control Limit, % | Upper Control Limit, % |
|--------------------|----------------|-----------------|----------------|---------------------------|---------------------------|
| 1,1-Dichloroethene | 50.0 | 42.3 | 85 | 70 | 129 |
| Benzene | 50.0 | 41.0 | 82 | 73 | 129 |
| Trichloroethene | 50.0 | 48.7 | 97 | 77 | 122 |
| Toluene | 50.0 | 44.4 | 89 | 75 | 123 |
| Chlorobenzene | 50.0 | 50.8 | 102 | 73 | 125 |

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

[illegible]

****Neylab subcontract the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates



REPORT OF ANALYTICAL RESULTS

NETLAB Case Number A1003-23A

Prepared for:

Simmons Environmental
213 Elm Street
Salisbury, MA 01952

Report Date: October 22, 2014

Director
New England Testing Laboratory, Inc.
Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.

1254 Douglas Avenue, North Providence, RI 02904

(401) 353-3420

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc.

Project #: 130805

Project Location: 253 Walden Street

RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
A1003-23A

Matrices: ☒ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocol (check all that apply below):

| | | | | | |
|--|--|--|--|---|--|
| 8260 VOC CAM II A <input type="checkbox"/> | 7470/7471 Hg CAM III B <input type="checkbox"/> | MassDEP VPH CAM IV A <input type="checkbox"/> | 8081 Pesticides CAM V B <input type="checkbox"/> | 7196 Hex Cr CAM VI B <input type="checkbox"/> | MassDEP APH CAM IX A <input type="checkbox"/> |
| 8270 SVOC CAM II B <input type="checkbox"/> | 7010 Metals CAM III C <input type="checkbox"/> | MassDEP EPH CAM IV B <input type="checkbox"/> | 8151 Herbicides CAM V C <input type="checkbox"/> | 8330 Explosives CAM VIII A <input type="checkbox"/> | TO-15 VOC CAM IX B <input type="checkbox"/> |
| 6010 Metals CAM III A x | 6020 Metals CAM III D <input type="checkbox"/> | 8082 PCB CAM V A <input type="checkbox"/> | 9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/> | 6860 Perchlorate CAM VIII B <input type="checkbox"/> | |

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

| | | | |
|----------|--|-------|----|
| A | Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times? | x Yes | No |
| B | Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed? | x Yes | No |
| C | Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances? | x Yes | No |
| D | Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? | x Yes | No |
| E | VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method? | Yes | No |
| F | Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)? | x Yes | No |

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

| | | | |
|----------|---|-------|-----------------|
| G | Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)? | x Yes | No ¹ |
|----------|---|-------|-----------------|

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

| | | | |
|----------|--|-------|-----------------|
| H | Were all QC performance standards specified in the CAM protocol(s) achieved? | x Yes | No ¹ |
| I | Were results reported for the complete analyte list specified in the selected CAM protocol(s)? | x Yes | No ¹ |

¹All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Richard Warila

Position: Laboratory Director

Printed Name: Richard Warila

Date: 10/22/2014

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on October 3, 2014 and additional analysis was requested on October 22, 2014. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is A1003-23.

Custody records are included in this report.

Site: 253 Walden Street

TABLE I, Samples Submitted

| Sample ID | Date Sampled | Matrix | Analysis Requested |
|------------------|--------------|--------|--------------------|
| | | | |
| Site Groundwater | 10/2/14 | Water | Table II |

TABLE II, Analysis and Methods

| ANALYSIS | PREPARATION METHOD | DETERMINATIVE METHOD |
|--------------|--------------------|----------------------|
| Total Metals | | |
| Iron | 3010A | 6010C |

This method is documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Metals

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

METALS RESULTS



Case Number: A1003-23A
 Sample ID: SITE GROUNDWATER
 Date collected: 10/02/14
 Matrix: WATER
 Sample Type: TOTAL

Analyst SJC/AM/DD

| | CAS | Preparative | Analytical | | Reporting | | Date of | Date |
|-----------|-----------|-------------|------------|--------|-----------|-------|-------------|----------|
| Parameter | Number | Method | Method | Result | Limit | Units | Preparation | Analyzed |
| Iron | 7439-89-6 | 3010A | 6010C | 0.80 | 0.05 | mg/l | 10/6/14 | 10/8/14 |

ND indicates Not Detected.

METALS RESULTS



Sample ID: METHOD BLANK
Matrix WATER
Sample Type: Preparation Blank

Analyst SJC/AM/DD

| | CAS | Preparative | Analytical | | Reporting | | Date of | Date |
|-----------|-----------|-------------|------------|--------|-----------|-------|-------------|----------|
| Parameter | Number | Method | Method | Result | Limit | Units | Preparation | Analyzed |
| | | | | | | | | |
| Iron | 7439-89-6 | 3010A | 6010C | ND | 0.05 | mg/l | 10/6/14 | 10/8/14 |

ND indicates Not Detected.

LABORATORY CONTROL SAMPLE RECOVERY

| Parameter | True Value | Result | Units | Recovery, % | Internal | | Date Analyzed |
|-----------|------------|--------|-------|-------------|----------|--------|---------------|
| | | | | | LCL, % | UCL, % | |
| Iron | 10.00 | 11.07 | mg/l | 111 | 85 | 115 | 10/8/14 |

New England Testing Laboratory, Inc.

CHAIN OF CUSTODY RECORD

130805 253 Walden Street

CLIENT Francis Environmental

213 Elm Street Salisbury, Wt 01952

REPORT TO: Stephen Hardy
INVOICE TO: Stephen Hardy

| | | | |
|--|--|---|---|
| | | C | G |
|--|--|---|---|

how many

SAMPLE I.D.

FROM

TIME

DATE _____

| | | |
|---------------|---|--------------------|
| 10/2/14 12:30 | ✓ | SIDE - GROUNDWATER |
|---------------|---|--------------------|

| | | |
|----------|---|----------------|
| 11/21/20 | ✓ | S/OF GENDLAFER |
| 11/22/20 | ✓ | |

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| Age Group | 2006 (%) | 2008 (%) |
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| 30-49 | 75 | 78 |
| 50-69 | 65 | 68 |
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Netlab subcontract the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve Salmonella, Carbamates

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