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Leominster, Massachusetts 01453
Tel: 774.450.7177
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December 21, 2018

U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP RGP Applications Coordinator
5 Post Office Square, Suite 100 (OEP06-4)
Boston, MA 02109-3912

**Reference:** **Notice of Intent (NOI) - Remediation General Permit (RGP)**
Temporary Construction Dewatering for Site Redevelopment
99 Sumner Street
East Boston, Massachusetts
LRT Reference # 2-1728

Dear Sir/Madam:

On behalf of W.L. French Excavating Corporation (French), Lockwood Remediation Technologies, LLC (LRT) has prepared this Notice of Intent (NOI) requesting a determination of coverage under the United States Environmental Protection Agency's (EPA's) Remediation General Permit (RGP), pursuant EPA's National Pollutant Discharge Elimination System (NPDES) program. This NOI was prepared in accordance with the general requirements of the NPDES and related guidance documentation provided by EPA.

Please note that there is an existing RGP Permit (MAG910807) associated with 99 Sumner Street that lists Guigli & Sons Inc. (Guigli) as the operator. LRT consulted with Guigli, who submitted the original NOI for 99 Sumner Street. Guigli shared the original NOI documentation with LRT to generate this NOI. This NOI serves as formal notification that French will replace Guigli as the site operator for 99 Sumner Street. The completed NOI Form is provided in **Appendix A**. In addition, please allow this correspondence to serve as Notice of Termination (NOT) for RGP Permit Authorization MAG910807. Please note that no water was discharged under Authorization MAG910807.

**Site Information**

This NOI has been prepared for the management of water that will be generated during dewatering activities associated with the redevelopment activities at 99 Sumner Street, Boston, MA (the Site). The Site consists of a relatively flat, lightly vegetated, approximately 3.3-acre waterfront lot on Boston's Inner Harbor in East Boston, Massachusetts. A Site Locus is provided as **Figure 1** and the Dewatering and Discharge Location is provided as **Figure 2**.

Redevelopment activities at the Site include mass excavation of urban fill and natural soils for the construction of a six-story residential building with one level of below grade parking and outdoor amenity

area. During pre-characterization activities at the Site in 2005, reportable conditions were encountered under the Massachusetts Contingency Plan (MCP). Lead, arsenic, mercury, polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and total petroleum hydrocarbons (TPH) were detected in soil at concentrations above applicable MCP Reportable Concentrations for S-1 soil (RCS-1). The release condition was reported to the Massachusetts Department of Environmental Protection (DEP) in 2005 and Release Tracking Number (RTN) 3-25307 was assigned to the Site. On behalf of the former owner, several MCP response action submittals were submitted to DEP, and a Class C-2 Response Action Outcome (RAO), or Temporary Solution, was filed on October 8, 2010. The Site redevelopment work will be performed under a Release Abatement Measure (RAM) Plan for management under the MCP of contaminated soil generated during construction activities. Groundwater sampling was performed in several wells across the Site as part of assessment activities for the Site, and no groundwater contamination was identified. Additional soil per-characterization samples were collected between November 2017 and October 2018 to support upcoming redevelopment activities. Generally, the recent soil data were consistent with the pre-characterization samples collected in 2005 with the exception of polychlorinated biphenyls (PCBs). During sampling in 2018, PCBs were detected at a concentration above RCS-1 standards in one sample, and RTN 3-35025 was assigned to the release. In addition, trace levels (<1%) of asbestos were detected in soil samples collected from the Site in 2018."

The earthwork to prepare the Site for redevelopment will require excavation of soil down to approximate Elevation (El.) 4.0 feet for building foundations. The excavation will be supported by sheet piles and groundwater that flows into the excavations during construction activities will be treated prior to discharge to through straw or haybale sediment barrier before entering the Boston Inner Harbor, such that the discharged effluent meets the effluent limitations established by NPDES Part 2.1 and Appendix V of the RGP Application. **Figure 3** includes a schematic of the proposed conceptual dewatering treatment system.

It is our opinion that the proposed discharge is eligible for coverage under the NPDES RGP. On behalf of French, we are requesting coverage under the NPDES RGP for the discharge of treated wastewater to Boston Inner Harbor in support of construction dewatering activities that are to take place at 99 Sumner Street, Boston, Massachusetts.

The enclosed NOI form provides required information on the general site conditions, discharge, treatment system, receiving water, and consultation with federal services.

Please feel free to contact us at 774-450-7177 if you have any questions or if you require additional information.

Sincerely,
Lockwood Remediation Technologies, LLC

*Kim Gravelle* *Paul Lockwood*

Kim Gravelle, P.G. Paul Lockwood
Project Manager President

Encl: Figure 1 – Locus Plan
Figure 2 – Dewatering and Discharge Location
Figure 3 – Water Treatment System Schematic

Appendix A – Notice of Intent Form
Appendix B – Massachusetts Category 5 Waters "Waters requiring a TDML"
Appendix C – Water Quality Based Effluent Limitations (WQBELs) Documentation
Appendix D – Analytical Data Report
Appendix E – Environmental Receptors
Appendix F – National Register of Historic Places, Brighton, Massachusetts

cc: W.L. French Excavating Corporation

# TABLES

**Table 1**
**Water Quality Data Summary**
99 Sumner Street
East Boston, MA

| LOCATION | Units | INFLUENT | RECEIVING |
|---|---|---|---|
| **SAMPLING DATE** | | **4/18/2018** | **4/18/2018** |
| **Anions by Ion Chromatography** | | | |
| Chloride | ug/l | **125,000** | - |
| **General Chemistry** | | | |
| Chromium, Trivalent | ug/l | **120** | - |
| SALINITY | SU | - | **21** |
| Solids, Total Suspended | ug/l | **2,300,000** | - |
| Cyanide, Total | ug/l | <5 | - |
| Chlorine, Total Residual | ug/l | <20 | - |
| pH (H) | SU | **7.9** | **7.9** |
| Nitrogen, Ammonia | ug/l | **654** | <75 |
| TPH, SGT-HEM | ug/l | <4,000 | - |
| Phenolics, Total | ug/l | <30 | - |
| Chromium, Hexavalent | ug/l | <10 | - |
| **Microextractables by GC** | | | |
| 1,2-Dibromoethane | ug/l | <0.01 | - |
| **Polychlorinated Biphenyls by GC** | | | |
| PCBs, Total | ug/l | BDL (<0.25) | - |
| **Semivolatile Organics by GC/MS** | | | |
| Bis(2-ethylhexyl)phthalate | ug/l | **3.3** | - |
| Total Phthalates | ug/l | **3.3** | - |
| **Semivolatile Organics by GC/MS-SIM** | | | |
| Fluoranthene | ug/l | **0.11** | - |
| Pyrene | ug/l | **0.1** | - |
| Total Group I PAHs | ug/l | BDL (<0.1) | - |
| Total Group II PAHs | ug/l | **0.2** | - |
| **Total Metals** | | | |
| Arsenic, Total | ug/l | **21.06** | **1.66** |
| Cadmium, Total | ug/l | **1.56** | <0.2 |
| Chromium, Total | ug/l | **120.8** | **3.04** |
| Copper, Total | ug/l | **329.3** | **2.75** |
| Iron, Total | ug/l | **80,800** | **412** |
| Lead, Total | ug/l | **1,327** | **2.96** |
| Mercury, Total | ug/l | **2.92** | <0.2 |
| Nickel, Total | ug/l | **60.46** | <2 |
| Selenium, Total | ug/l | <5 | <5 |
| Silver, Total | ug/l | **0.42** | <0.4 |
| Zinc, Total | ug/l | **1,159** | <10 |
| **Volatile Organics by GC/MS** | | | |
| Methylene chloride | ug/l | <3 | - |
| 1,1-Dichloroethane | ug/l | <0.75 | - |
| Chloroform | ug/l | <0.75 | - |
| Carbon tetrachloride | ug/l | <0.5 | - |
| 1,2-Dichloropropane | ug/l | <1.8 | - |
| Dibromochloromethane | ug/l | <0.5 | - |
| 1,1,2-Trichloroethane | ug/l | <0.75 | - |
| Tetrachloroethene | ug/l | <0.5 | - |
| Chlorobenzene | ug/l | <0.5 | - |
| Trichlorofluoromethane | ug/l | <2.5 | - |
| 1,2-Dichloroethane | ug/l | <0.5 | - |
| 1,1,1-Trichloroethane | ug/l | <0.5 | - |
| Bromodichloromethane | ug/l | <0.5 | - |
| trans-1,3-Dichloropropene | ug/l | <0.5 | - |
| cis-1,3-Dichloropropene | ug/l | <0.5 | - |
| 1,3-Dichloropropene, Total | ug/l | <0.5 | - |
| 1,1-Dichloropropene | ug/l | <2.5 | - |
| Bromoform | ug/l | <2 | - |
| 1,1,2,2-Tetrachloroethane | ug/l | <0.5 | - |
| Benzene | ug/l | <0.5 | - |
| Toluene | ug/l | <0.75 | - |
| Ethylbenzene | ug/l | <0.5 | - |
| Chloromethane | ug/l | <2.5 | - |
| Bromomethane | ug/l | <1 | - |
| Vinyl chloride | ug/l | <1 | - |
| Chloroethane | ug/l | <1 | - |
| 1,1-Dichloroethene | ug/l | <0.5 | - |
| 1,2-Dichloroethene, Total | ug/l | <0.5 | - |
| Trichloroethene | ug/l | <0.5 | - |
| 1,2-Dichlorobenzene | ug/l | <2.5 | - |
| 1,3-Dichlorobenzene | ug/l | <2.5 | - |
| 1,4-Dichlorobenzene | ug/l | <2.5 | - |
| Methyl tert butyl ether | ug/l | <1 | - |
| p/m-Xylene | ug/l | <1 | - |
| o-Xylene | ug/l | <1 | - |
| Xylenes, Total | ug/l | <1 | - |
| cis-1,2-Dichloroethene | ug/l | <0.5 | - |
| Dibromomethane | ug/l | <5 | - |
| 1,4-Dichlorobutane | ug/l | <5 | - |
| 1,2,3-Trichloropropane | ug/l | <5 | - |
| Styrene | ug/l | <1 | - |
| Dichlorodifluoromethane | ug/l | <5 | - |
| Acetone | ug/l | <5 | - |
| Carbon disulfide | ug/l | <5 | - |

**Table 1**
**Water Quality Data Summary**
99 Sumner Street
East Boston, MA

| LOCATION | Units | INFLUENT | RECEIVING |
|---|---|---|---|
| **SAMPLING DATE** | | **4/18/2018** | **4/18/2018** |
| 2-Butanone | ug/l | <5 | - |
| Vinyl acetate | ug/l | <5 | - |
| 4-Methyl-2-pentanone | ug/l | <5 | - |
| 2-Hexanone | ug/l | <5 | - |
| Ethyl methacrylate | ug/l | <5 | - |
| Acrylonitrile | ug/l | <5 | - |
| Bromochloromethane | ug/l | <2.5 | - |
| Tetrahydrofuran | ug/l | <5 | - |
| 2,2-Dichloropropane | ug/l | <2.5 | - |
| 1,2-Dibromoethane | ug/l | *<2* | - |
| 1,3-Dichloropropane | ug/l | <2.5 | - |
| 1,1,1,2-Tetrachloroethane | ug/l | <0.5 | - |
| Bromobenzene | ug/l | <2.5 | - |
| n-Butylbenzene | ug/l | <0.5 | - |
| sec-Butylbenzene | ug/l | <0.5 | - |
| tert-Butylbenzene | ug/l | <2.5 | - |
| o-Chlorotoluene | ug/l | <2.5 | - |
| p-Chlorotoluene | ug/l | <2.5 | - |
| 1,2-Dibromo-3-chloropropane | ug/l | <2.5 | - |
| Hexachlorobutadiene | ug/l | <0.5 | - |
| Isopropylbenzene | ug/l | <0.5 | - |
| p-Isopropyltoluene | ug/l | <0.5 | - |
| Naphthalene | ug/l | <2.5 | - |
| Tert-Butyl Alcohol | ug/l | <10 | - |
| Tertiary-Amyl Methyl Ether | ug/l | <2 | - |
| Total BTEX | ug/l | BDL (<0.75) | - |
| **Volatile Organics by GC/MS-SIM** | | | |
| 1,4-Dioxane | ug/l | <3 | - |

Notes:
1. The samples were collected by Sanborn, Head & Associates, Inc. personnel on the dates indicated and were submitted to Alpha Analytical, Inc. of Westborough, MA (Alpha) for analysis.
2. The Laboratory Reporting Limit (RL) meets the requirements of Appendix V of the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP).
3. Concentrations above detected laboratory reporting limits are bolded.

Abbreviations:
ug/l = micrograms per liter
BTEX = Sum of benzene, toluene, ethylbenzene, and total xylenes
NS = no standard
< = the compound was not detected above the reporting limit shown
MCP = Massachusetts Contingency Plan

**FIGURES**


Source: Base Map MassGIS Oliver.

**Notes**

1. Figure is not to scale.

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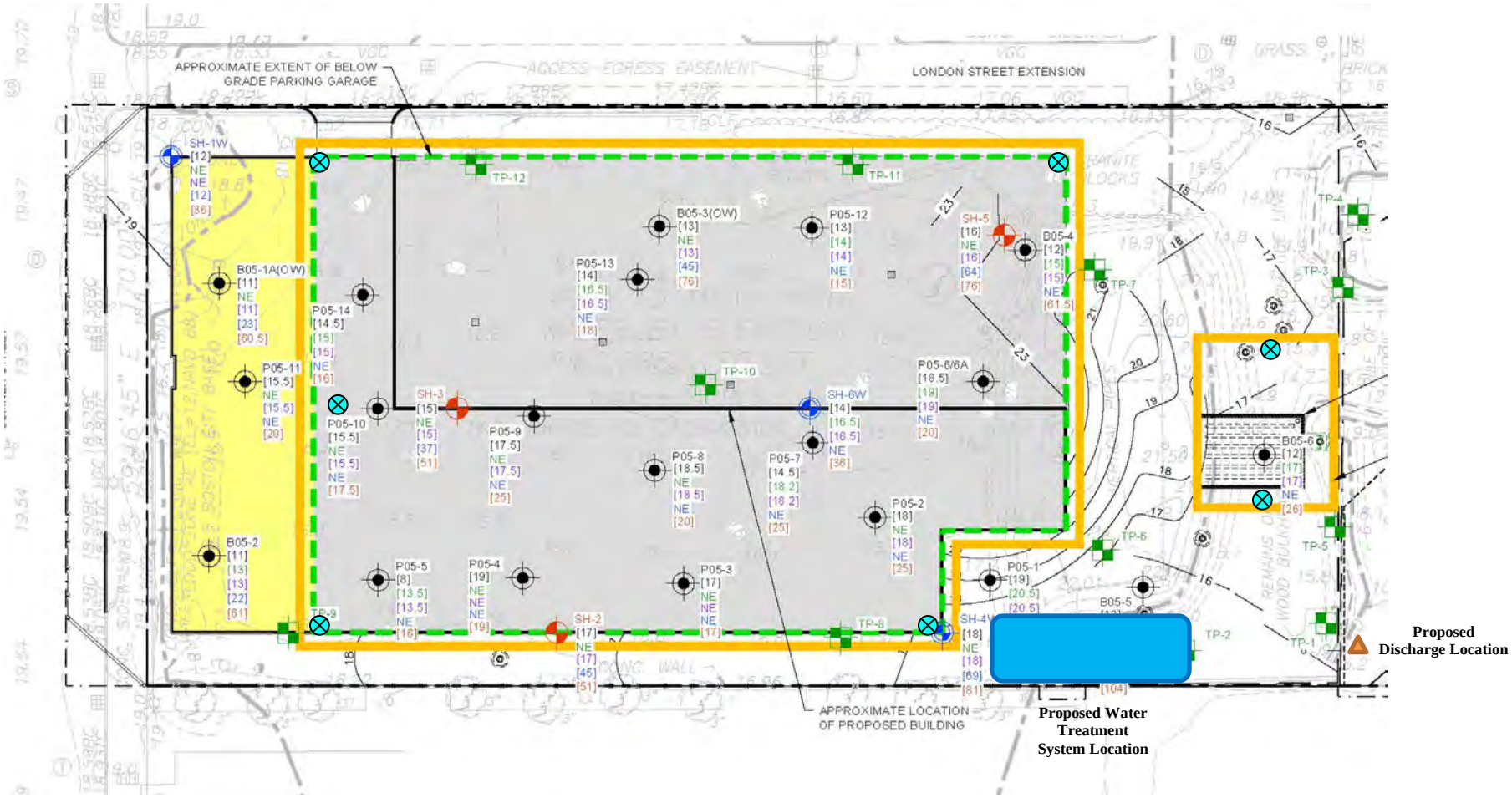
**Figure 1 – Locus Plan**
99 Sumner Street
Boston, Massachusetts




Source: Sheet 2 – Exploration Location Plan by Sanborn Head and Associates, Inc., dated March 2018

**Notes**

1. Figure is not to scale.

**Key**

Dewatering Sump

Discharge Location


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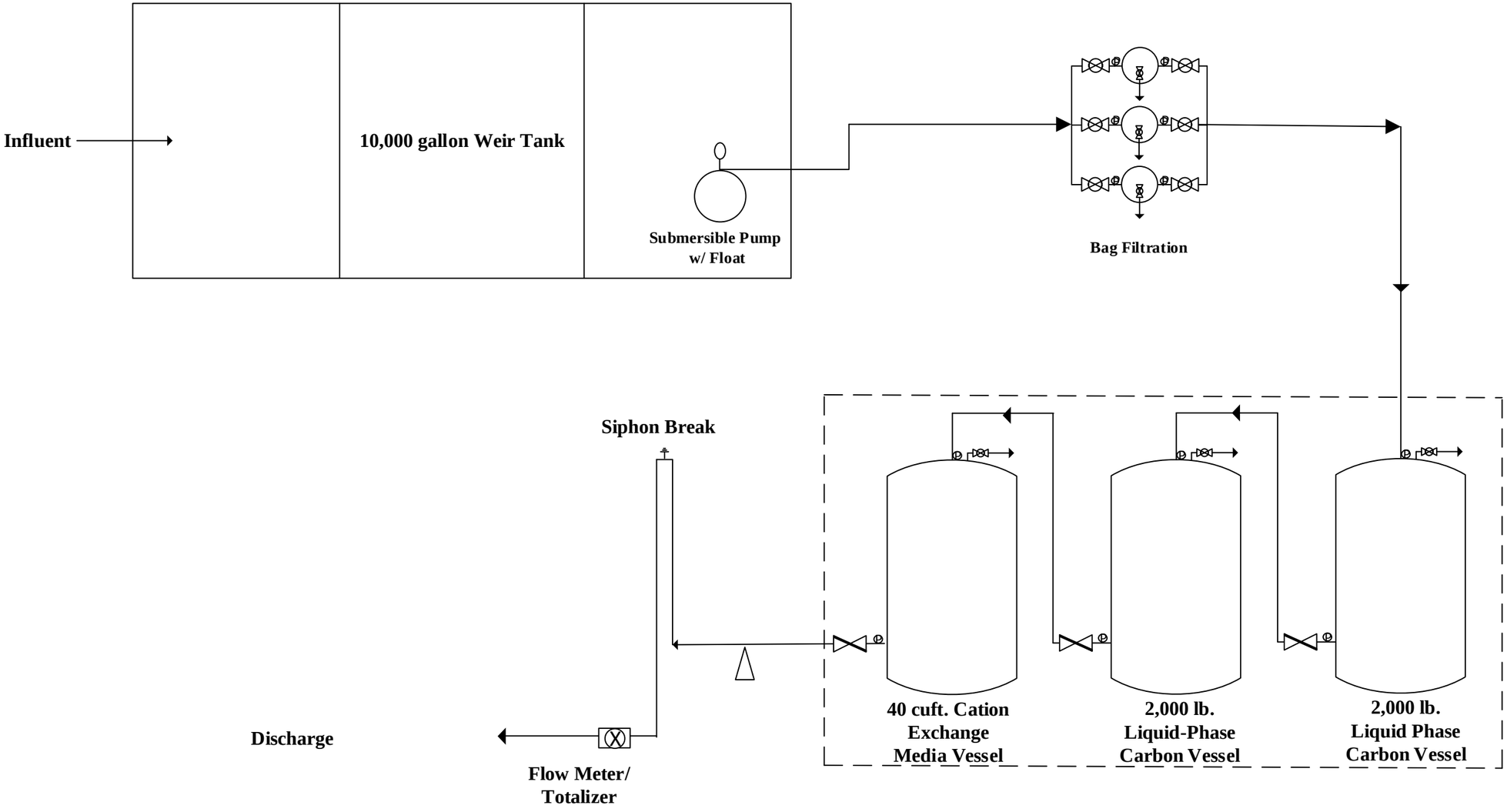
**Figure 2 – Dewatering and Discharge Plan**
99 Sumner Street
Boston, Massachusetts




**Notes:**
1. Figure not drawn to scale
2. System rated for 100 GPM
3. Sampling ports on all treatment system components

**Key:**
Piping/Hose
Contingent
Sample Port

| | | | | |
|---|---|---|---|---|
| Lockwood Remediation Technologies, LLC<br>89 Crawford Street<br>Leominster, MA 01453<br>Office: 774-450-7177<br>DESIGNED BY: LRT DRAWN BY: B.A.W.<br>DATE: REVISION: | **Figure 3 - Water Treatment System Schematic** | **Water Treatment System**<br>99 Summer Street<br>Boston, Massachusetts | PROJECT No.<br>2-1728 | FIGURE No.<br>3 |

**APPENDIX A**

**NOI FORM**

## II. Suggested Format for the Remediation General Permit Notice of Intent (NOI)

### A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:<br>99 Sumner Street</td><td colspan="3">Site address: 99 Sumner Street<br>Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02128</td></tr>
<tr><td rowspan="4">2. Site owner<br>DIV Sumner Street, LLC<br><br>Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private<br>☐ Other; if so, specify:</td><td colspan="3">Contact Person: Mr. Stephen Davis</td></tr>
<tr><td colspan="2">Telephone: (627) 451 - 1130</td><td>Email:</td></tr>
<tr><td colspan="3">Mailing address: 125 High Street, 21st Floor<br>Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02110</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner<br>W.L. French Excavating Corporation</td><td colspan="3">Contact Person: James Ganiatsos</td></tr>
<tr><td colspan="2">Telephone: (617) 590-4131</td><td>Email: jganiatsos@wlfrench.com</td></tr>
<tr><td colspan="3">Mailing address:<br>Street: 3 Survey Circle</td></tr>
<tr><td>City: North Billerica</td><td>State: MA</td><td>Zip: 01862</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:<br>MAG910807<br><br>NPDES permit is (check all that apply: ■ RGP ☐ DGP ☐ CGP<br>☐ MSGP ■ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):<br>■ MA Chapter 21e; list RTN(s):<br>3-25307, 3-35025<br>☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:<br>☐ CERCLA<br>☐ UIC Program<br>☐ POTW Pretreatment<br>■ CWA Section 404 Applied for under the U.S. Army Corps of Engineers, General Permits for Massachusetts</td></tr>
</table>

**B. Receiving water information:**

| 1. Name of receiving water(s): | Waterbody identification of receiving water(s): | Classification of receiving water(s): |
|---|---|---|
| Boston Inner Harbor | MA70-02 | Class SB(CSO) |

Receiving water is (check any that apply): ☐ Outstanding Resource Water ☐ Ocean Sanctuary ☐ territorial sea ☐ Wild and Scenic River

2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): ■ Yes ☐ No

Are sensitive receptors present near the site? (check one): ☐ Yes ■ No
If yes, specify:

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. See Appendix B

| | |
|---|---|
| 4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire. | NA (Saltwater) |
| 5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire. | 1 (Saltwater) |

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ■ Yes ☐ No
If yes, indicate date confirmation received: 4/13/2018

7. Has the operator attached a summary of receiving water sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No (See Table 1 and Appendix D)

**C. Source water information:**

1. Source water(s) is (check any that apply):

| | | | |
|---|---|---|---|
| ■ Contaminated groundwater<br><br>Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one):<br>■ Yes ☐ No (See Table 1 and Appendix D) | ☐ Contaminated surface water<br><br>Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one):<br>☐ Yes ☐ No | ☐ The receiving water<br><br>☐ A surface water other than the receiving water; if so, indicate waterbody: | ☐ Potable water; if so, indicate municipality or origin:<br><br>☐ Other; if so, specify: |

| | |
|---|---|
| 2. Source water contaminants: Chloride, TSS, Amonia, Arsenic, Cadmium, Chromium III, Copper, Iron, Lead, Mercury, Nickel, Silver, Zinc, bis (2-ethylhexyl) phthalate | |
| a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): ☐ Yes ■ No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII. | b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance with the instructions in Appendix VIII? (check one): ☐ Yes ☐ No |
| 3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): ☐ Yes ■ No | |

## D. Discharge information

| | |
|---|---|
| 1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source | |
| Outfall(s):<br>Boston Inner Harbor | Outfall location(s): (Latitude, Longitude)<br>42.3688, -71.0429 |
| Discharges enter the receiving water(s) via (check any that apply): ■ Direct discharge to the receiving water ☐ Indirect discharge, if so, specify:<br><br>☐ A private storm sewer system ☐ A municipal storm sewer system<br>If the discharge enters the receiving water via a private or municipal storm sewer system:<br>Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No<br>Has the operator has received permission from the owner to use such system for discharges? (check one): ☐ Yes ☐ No, if so, explain, with an estimated timeframe for obtaining permission:<br>Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ☐ Yes ■ No | |
| Provide the expected start and end dates of discharge(s) (month/year): Start January 1, 2019; End January 1, 2020<br>Indicate if the discharge is expected to occur over a duration of: ■ less than 12 months ☐ 12 months or more ☐ is an emergency discharge | |
| Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No (See Figure 2) | |

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="5">☐ I – Petroleum-Related Site Remediation<br>☐ II – Non-Petroleum-Related Site Remediation<br>■ III – Contaminated Site Dewatering<br>☐ IV – Dewatering of Pipelines and Tanks<br>☐ V – Aquifer Pump Testing<br>☐ VI – Well Development/Rehabilitation<br>☐ VII – Collection Structure Dewatering/Remediation<br>☐ VIII – Dredge-Related Dewatering</td><td colspan="2">a. If Activity Category I or II: (check all that apply)<br><br>☐ A. Inorganics<br>☐ B. Non-Halogenated Volatile Organic Compounds<br>☐ C. Halogenated Volatile Organic Compounds<br>☐ D. Non-Halogenated Semi-Volatile Organic Compounds<br>☐ E. Halogenated Semi-Volatile Organic Compounds<br>☐ F. Fuels Parameters</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>■ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply)<br><br>■ A. Inorganics<br>☐ B. Non-Halogenated Volatile Organic Compounds<br>☐ C. Halogenated Volatile Organic Compounds<br>■ D. Non-Halogenated Semi-Volatile Organic Compounds<br>☐ E. Halogenated Semi-Volatile Organic Compounds<br>☐ F. Fuels Parameters</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

| Parameter | Known or believed absent | Known or believed present | # of samples | Test method (#) | Detection limit (µg/l) | Influent | | Effluent Limitations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Daily maximum (µg/l) | Daily average (µg/l) | TBEL | WQBEL |
| **A. Inorganics** | | | | | | | | | |
| Ammonia | | ✔ | 1 | 4500NH3 | 375 | 654 | | Report mg/L | --- |
| Chloride | | ✔ | 1 | 300.0 | 12,500 | 125,000 | | Report µg/l | --- |
| Total Residual Chlorine | ✔ | | 1 | 4500CL | 20 | ND | | 0.2 mg/L | 7.5 |
| Total Suspended Solids | | ✔ | 1 | 2540D | 100,000 | 2,300,000 | | 30 mg/L | --- |
| Antimony | ✔ | | 1 | 200.8 | 4.00 | ND | | 206 µg/L | 640 |
| Arsenic | | ✔ | 1 | 200.8 | 1.00 | 21.06 | | 104 µg/L | 36 |
| Cadmium | | ✔ | 1 | 200.8 | 0.20 | 1.56 | | 10.2 µg/L | 8.9 |
| Chromium III | | ✔ | 1 | 200.8 | 10 | 120 | | 323 µg/L | 100 |
| Chromium VI | ✔ | | 1 | 7196A | 10 | ND | | 323 µg/L | 50 |
| Copper | | ✔ | 1 | 200.8 | 1.00 | 329.3 | | 242 µg/L | 3.7 |
| Iron | | ✔ | 1 | 200.7 | 50 | 80,800 | | 5,000 µg/L | --- |
| Lead | | ✔ | 1 | 200.8 | 0.50 | 1,327 | | 160 µg/L | 8.5 |
| Mercury | | ✔ | 1 | 245.1 | 0.20 | 2.92 | | 0.739 µg/L | 1.11 |
| Nickel | | ✔ | 1 | 200.8 | 2.00 | 60.46 | | 1,450 µg/L | 8.3 |
| Selenium | ✔ | | 1 | 200.8 | 5.00 | ND | | 235.8 µg/L | 71 |
| Silver | | ✔ | 1 | 200.8 | 0.40 | 0.42 | | 35.1 µg/L | 2.2 |
| Zinc | | ✔ | 1 | 200.8 | 10 | 1,159 | | 420 µg/L | 86 |
| Cyanide | ✔ | | 1 | 4500CN | 5 | ND | | 178 mg/L | 1.0 |
| **B. Non-Halogenated VOCs** | | | | | | | | | |
| Total BTEX | ✔ | | 1 | 8260C | 2.75 | ND | | 100 µg/L | --- |
| Benzene | ✔ | | 1 | 8260C | 0.5 | ND | | 5.0 µg/L | --- |
| 1,4 Dioxane | ✔ | | 1 | 8260C | 3.0 | ND | | 200 µg/L | --- |
| Acetone | ✔ | | 1 | 8260C | 5.0 | ND | | 7.97 mg/L | --- |
| Phenol | ✔ | | 1 | 82,700 | 5.0 | ND | | 1,080 µg/L | 300 |

| Parameter | Known or believed absent | Known or believed present | # of samples | Test method (#) | Detection limit (µg/l) | Influent | | Effluent Limitations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Daily maximum (µg/l) | Daily average (µg/l) | TBEL | WQBEL |
| **C. Halogenated VOCs** | | | | | | | | | |
| Carbon Tetrachloride | ✔ | | 1 | 8260C | 0.50 | ND | | 4.4 µg/L | 1.6 |
| 1,2 Dichlorobenzene | ✔ | | 1 | 8260C | 2.5 | ND | | 600 µg/L | --- |
| 1,3 Dichlorobenzene | ✔ | | 1 | 8260C | 2.5 | ND | | 320 µg/L | --- |
| 1,4 Dichlorobenzene | ✔ | | 1 | 8260C | 2.5 | ND | | 5.0 µg/L | --- |
| Total dichlorobenzene | ✔ | | 1 | 8260C | 2.5 | ND | | 763 µg/L in NH | --- |
| 1,1 Dichloroethane | ✔ | | 1 | 8260C | 0.75 | ND | | 70 µg/L | --- |
| 1,2 Dichloroethane | ✔ | | 1 | 8260C | 0.50 | ND | | 5.0 µg/L | --- |
| 1,1 Dichloroethylene | ✔ | | 1 | 8260C | 0.50 | ND | | 3.2 µg/L | --- |
| Ethylene Dibromide | ✔ | | 1 | 504.1 | 0.010 | ND | | 0.05 µg/L | --- |
| Methylene Chloride | ✔ | | 1 | 8260C | 3.0 | ND | | 4.6 µg/L | --- |
| 1,1,1 Trichloroethane | ✔ | | 1 | 8260C | 0.50 | ND | | 200 µg/L | --- |
| 1,1,2 Trichloroethane | ✔ | | 1 | 8260C | 0.75 | ND | | 5.0 µg/L | --- |
| Trichloroethylene | ✔ | | 1 | 8260C | 0.5 | ND | | 5.0 µg/L | --- |
| Tetrachloroethylene | ✔ | | 1 | 8260C | 0.50 | ND | | 5.0 µg/L | 3.3 |
| cis-1,2 Dichloroethylene | ✔ | | 1 | 8260C | 0.5 | ND | | 70 µg/L | --- |
| Vinyl Chloride | ✔ | | 1 | 8260C | 1.0 | ND | | 2.0 µg/L | --- |
| **D. Non-Halogenated SVOCs** | | | | | | | | | |
| Total Phthalates | | ✔ | 1 | 8270D | 3.0 | 3.3 | | 190 µg/L | --- |
| Diethylhexyl phthalate | | ✔ | 1 | 8270D | 3.0 | 3.3 | | 101 µg/L | 2.2 |
| Total Group I PAHs | ✔ | | 1 | 8270D | 0.1 | ND | | 1.0 µg/L | --- |
| Benzo(a)anthracene | ✔ | | 1 | 8270D | 0.1 | ND | | As Total PAHs | 0.0038 |
| Benzo(a)pyrene | ✔ | | 1 | 8270D | 0.1 | ND | | | 0.0038 |
| Benzo(b)fluoranthene | ✔ | | 1 | 8270D | 0.1 | ND | | | 0.0038 |
| Benzo(k)fluoranthene | ✔ | | 1 | 8270D | 0.1 | ND | | | 0.0038 |
| Chrysene | ✔ | | 1 | 8270D | 0.1 | ND | | | 0.0038 |
| Dibenzo(a,h)anthracene | ✔ | | 1 | 8270D | 0.1 | ND | | | 0.0038 |
| Indeno(1,2,3-cd)pyrene | ✔ | | 1 | 8270D | 0.1 | ND | | | 0.0038 |

| Parameter | Known or believed absent | Known or believed present | # of samples | Test method (#) | Detection limit (µg/l) | Influent | | Effluent Limitations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Daily maximum (µg/l) | Daily average (µg/l) | TBEL | WQBEL |
| Total Group II PAHs | | ✔ | 1 | 8270D | 0.10 | 0.21 | | 100 µg/L | --- |
| Naphthalene | ✔ | | 1 | 8270D | 0.10 | ND | | 20 µg/L | --- |
| **E. Halogenated SVOCs** | | | | | | | | | |
| Total PCBs | ✔ | | 1 | 608 | 0.20 | ND | | 0.000064 µg/L | --- |
| Pentachlorophenol | ✔ | | 1 | 8270D | 0.80 | ND | | 1.0 µg/L | --- |
| **F. Fuels Parameters** | | | | | | | | | |
| Total Petroleum Hydrocarbons | ✔ | | 1 | 1664A | 4,000 | ND | | 5.0 mg/L | --- |
| Ethanol | ✔ | | | | | | | Report mg/L | --- |
| Methyl-tert-Butyl Ether | ✔ | | 1 | 8260C | 1.0 | ND | | 70 µg/L | 20 |
| tert-Butyl Alcohol | ✔ | | 1 | 8260C | 10 | ND | | 120 µg/L in MA<br>40 µg/L in NH | --- |
| tert-Amyl Methyl Ether | ✔ | | 1 | 8260C | 2.0 | ND | | 90 µg/L in MA<br>140 µg/L in NH | --- |
| **Other (i.e., pH, temperature, hardness, salinity, $LC_{50}$, additional pollutants present); if so, specify:** | | | | | | | | | |
| pH | | | 1 | field | | 7.9 SU | | | |
| Temperature | | | 1 | field | | | | | |
| salinity | | | 1 | 2520B | 2.0 | 21 SU | | | |
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## E. Treatment system information

1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)

☐ Adsorption/Absorption ☐ Advanced Oxidation Processes ☐ Air Stripping ■ Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption
■ Ion Exchange ☐ Precipitation/Coagulation/Flocculation ■ Separation/Filtration ☐ Other; if so, specify:

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.

Groundwater encountered during construction activities will be pumped into a treatment system prior to discharge into the Inner Boston Harbor. The first element of the treatment system will be a fractionalization tank where solids will settle out. The effluent will then pass through the following as necessary: bag filters, 9g-a-c-vessel, and a cation resin vessel. The effluent will be discharged to the Inner Boston Harbor.

Identify each major treatment component (check any that apply):

■ Fractionation tanks☐ Equalization tank ☐ Oil/water separator ☐ Mechanical filter ☐ Media filter
☐ Chemical feed tank ☐ Air stripping unit ■ Bag filter ■ Other; if so, specify: cation resin vessel (if needed).

Indicate if either of the following will occur (check any that apply):

☐ Chlorination ☐ De-chlorination

| | |
|---|---|
| 3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component.<br>Indicate the most limiting component: Fractionation tank<br>Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification: | 100 |
| Provide the proposed maximum effluent flow in gpm. | 100 |
| Provide the average effluent flow in gpm. | 60 |
| If Activity Category IV applies, indicate the estimated total volume of water that will be discharged: | |

4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): ■ Yes ☐ No (See Figure 3)

## F. Chemical and additive information

1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)

☐ Algaecides/biocides ☐ Antifoams ☐ Coagulants ☐ Corrosion/scale inhibitors ☐ Disinfectants ☐ Flocculants ☐ Neutralizing agents ☐ Oxidants ☐ Oxygen ☐ scavengers ☐ pH conditioners ☐ Bioremedial agents, including microbes ☐ Chlorine or chemicals containing chlorine ■ Other; if so, specify:
None anticipated

2. Provide the following information for each chemical/additive, using attachments, if necessary:

a. Product name, chemical formula, and manufacturer of the chemical/additive;
b. Purpose or use of the chemical/additive or remedial agent;
c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive;
d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive;
e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and
f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).

3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance with the instructions in F, above? (check one): ☐ Yes ☐ No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive?
(check one): ☐ Yes ☐ No

## G. Endangered Species Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **FWS Criterion A**: No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".

☐ **FWS Criterion B**: Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation). Has the operator completed consultation with FWS? (check one): ☐ Yes ☐ No; if no, is consultation underway? (check one): ☐ Yes ☐ No

☐ **FWS Criterion C**: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the FWS. This determination was made by: (check one) ☐ the operator ☐ EPA ☐ Other; if so, specify:

■ **NMFS Criterion**: A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of listed species. Has the operator previously completed consultation with NMFS? (check one): ☐ Yes ■ No

2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): ■ Yes ☐ No

Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): ■ Yes ☐ No; if yes, attach.

## H. National Historic Preservation Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **Criterion A**: No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.

☐ **Criterion B**: Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.

☐ **Criterion C**: Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.

2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): ■ Yes ☐ No (See Appendix)

Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): ☐ Yes ■ No

## I. Supplemental information

Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.

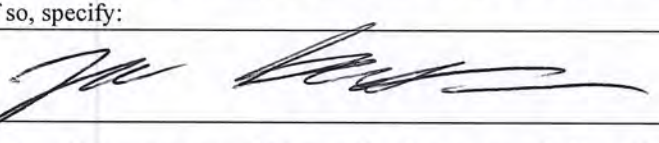
Appendix A – Notice of Intent Form; Appendix B – Massachusetts Category 5 Waters "Waters requiring a TDML"; Appendix C – Water Quality Based Effluent Limitations (WQBELs) Documentation; Appendix D – Analytical Data Report; Appendix E – Environmental Receptors; Appendix F – National Register of Historic Places, Research Documentation

Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ■ Yes ☐ No

Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ■ Yes ☐ No

## J. Certification requirement

*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 gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

| | |
|---|---|
| BMPP certification statement: | A BMPP meeting the requirements of this general permit will be developed and implemented upon initiation of discharge. |
| Notification provided to the appropriate State, including a copy of this NOI, if required. | Check one: Yes ■ No ☐ |
| Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested. | Check one: Yes ■ No ☐ |
| Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested. | Check one: Yes ☐ No ☐ NA ■ |
| Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission. | Check one: Yes ☐ No ☐ NA ■ |
| Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify: | Check one: Yes ☐ No ☐ NA ■ |
| Signature:  | Date: 12/26/2018 |
| Print Name and Title: James Ganiatsos, Project Manager | |

# APPENDIX B

## MASSACHUSETTS CATEGORY 5 WATERS
## "WATERS REQUIRING A TDML"

# Massachusetts Category 5 Waters
# "Waters requiring a TMDL"

| NAME | SEGMENT ID | DESCRIPTION | SIZE | UNITS | IMPAIRMENT CAUSE | EPA TMDL NO. |
|---|---|---|---|---|---|---|
| Unnamed Tributary | MA51-38 | Unnamed tributary to Dark Brook, from perennial portion near the Route 90, 290EB, 395SB, 12NB interchange, Auburn to the confluence with Dark Brook, south of Water Street, Auburn (sections culverted). | 0.8 | MILES | Chloride | |
| Welsh Pond | MA51176 | Sutton | 8 | ACRES | (Non-Native Aquatic Plants*) | |
| | | | | | Aquatic Plants (Macrophytes) | |
| West River | MA51-11 | Outlet Silver Lake, Grafton to Upton WWTP discharge, Upton (through Lake Wildwood formerly segment MA51181). | 3.8 | MILES | (Non-Native Aquatic Plants*) | |
| | | | | | pH, Low | |
| West River | MA51-12 | Upton WWTP discharge, Upton to confluence with Blackstone River, Uxbridge (through former segments Harrington Pool MA51197, and West River Pond MA51177). | 9.3 | MILES | (Non-Native Aquatic Plants*) | |
| | | | | | Aquatic Plants (Macrophytes) | |
| | | | | | Cadmium | |
| | | | | | Chloride | |
| | | | | | Copper | |
| | | | | | Lead | |
| | | | | | Nutrient/Eutrophication Biological Indicators | |
| | | | | | pH, Low | |
| Woodbury Pond | MA51185 | Sutton | 5 | ACRES | (Non-Native Aquatic Plants*) | |
| | | | | | Aquatic Plants (Macrophytes) | |
| Woolshop Pond | MA51186 | Millbury | 5 | ACRES | (Non-Native Aquatic Plants*) | |
| | | | | | Aquatic Plants (Macrophytes) | |
| | | | | | Turbidity | |
| **Boston Harbor (Proper)** | | | | | | |
| Boston Harbor | MA70-01 | The area defined by a line from the southerly tip of Deer Island to Boston Lighthouse on Little Brewster Island, then south to Point Allerton; across Hull and West guts; across the mouths of Quincy and Dorchester bays, Boston Inner Harbor and WinthropBay (including President Roads and Nantasket Roads). | 18.59 | SQUARE MILES | Fecal Coliform | |
| | | | | | Other | |
| | | | | | PCB in Fish Tissue | |
| Boston Inner Harbor | MA70-02 | From the Mystic and Chelsea rivers, Chelsea/Boston, to the line between Governors Island and Fort Independence, Boston (East Boston) (including Fort Point, Reserved and Little Mystic channels). | 2.56 | SQUARE MILES | Enterococcus | |
| | | | | | Fecal Coliform | |
| | | | | | Other | |
| | | | | | Oxygen, Dissolved | |
| | | | | | PCB in Fish Tissue | |

# Appendix 1
# Assessment Units and Integrated List Categories by Major Watershed

| NAME | SEGMENT ID | DESCRIPTION | SIZE | UNITS | CATEGORY |
|---|---|---|---|---|---|
| Boston Inner Harbor | MA70-02 | From the Mystic and Chelsea rivers, Chelsea/Boston, to the line between Governors Island and Fort Independence, Boston (East Boston) (including Fort Point, Reserved and Little Mystic channels). | 2.56 | SQUARE MILES | 5 |
| Dorchester Bay | MA70-03 | From the mouth of the Neponset River, Boston/Quincy to the line between Head Island and the north side of Thompson Island and the line between the south point of Thompson Island, Boston and Chapel Rocks, Quincy. | 3.46 | SQUARE MILES | 5 |
| Hingham Bay | MA70-06 | The area north of the mouth of the Weymouth Fore River extending on the west along the line between Nut Island and the south point of West Head, and on the east side along a line from Prince Head just east of Pig Rock to the mouth of the Weymouth ForeRiver (midway between Lower Neck and Manot Beach), Quincy. | 0.96 | SQUARE MILES | 5 |
| Hingham Bay | MA70-07 | The area defined between Peddocks Island and Windmill Point; from Windmill Point southeast to Bumkin Island; from Bumkin Island southeast to Sunset Point; from Sunset Point across the mouth of the Weir River to Worlds End; from Worlds End across themouth of Hingham Harbor to Crow Point; from Beach Lane, Hingham across the mouth of the Weymouth Back River to Lower Neck; and from Lower Neck midway across the mouth of the Weymouth Fore River. | 4.8 | SQUARE MILES | 5 |
| Hull Bay | MA70-09 | The area defined east of a line from Windmill Point, Hull to Bumkin Island, Hingham and from Bumkin Island to Sunset Point, Hull. | 2.48 | SQUARE MILES | 5 |
| Pleasure Bay | MA70-11 | A semi-enclosed bay, the flow restricted through two channels between Castle and Head islands, Boston | 0.22 | SQUARE MILES | 5 |
| Quincy Bay | MA70-04 | From Bromfield Street near the Wollaston Yacht Club, northeast to N42 17.3 W71 00.1, then southeast to Houghs Neck near Sea Street and Peterson Road (formerly referred to as the "Willows"), Quincy. | 1.52 | SQUARE MILES | 5 |
| Quincy Bay | MA70-05 | Quincy Bay, north of the class SA waters (segment MA70-04), Quincy to the line between Moon Head and Nut Island, Quincy. | 4.41 | SQUARE MILES | 5 |
| Winthrop Bay | MA70-10 | From the tidal flats at Coleridge Street, Boston (East Boston) to a line between Logan International Airport and Point Shirley, Boston/Winthrop. | 1.65 | SQUARE MILES | 5 |
| **Boston Harbor: Mystic** | | | | | |
| Aberjona River | MA71-01 | Source just south of Birch Meadow Drive, Reading to inlet Upper Mystic Lake at Mystic Valley Parkway, Winchester (portion culverted underground). (through former pond segments Judkins Pond MA71021 and Mill Pond MA71031). | 9.1 | MILES | 5 |
| Alewife Brook | MA71-04 | Outlet of Little Pond, Belmont to confluence with Mystic River, Arlington/Somerville (portion in Belmont and Cambridge identified as Little River with name changing to Alewife Brook at Arlington corporate boundary). | 2.3 | MILES | 5 |
| Belle Isle Inlet | MA71-14 | From tidegate at Bennington Street, Boston/Revere to confluence with Winthrop Bay, Boston/Winthrop. | 0.12 | SQUARE MILES | 5 |
| Bellevue Pond | MA71004 | Medford | 2 | ACRES | 3 |
| Blacks Nook | MA71005 | Cambridge | 2 | ACRES | 5 |
| Chelsea River | MA71-06 | From confluence with Mill Creek, Chelsea/Revere to confluence with Boston Inner Harbor, Chelsea/East Boston/Charlestown. | 0.38 | SQUARE MILES | 5 |
| Clay Pit Pond | MA71011 | Belmont | 12 | ACRES | 5 |
| Cummings Brook | MA71-10 | Headwaters east of Wright Street, Woburn to confluence with Fowle Brook, Woburn. | 2.1 | MILES | 3 |
| Ell Pond | MA71014 | Melrose | 23 | ACRES | 5 |
| Hills Pond | MA71018 | Arlington | 2 | ACRES | 4C |

# APPENDIX C

# WATER QUALITY BASED EFFLUENT LIMITATIONS (WQBELS) DOCUMENTATION

USGS StreamStats

Report | About | Help

SELECT A STATE / REGION

Connecticut River Basin

IDENTIFY A STUDY AREA

**Step 2:** Click the 'Delineate' button to activate the delineation tool

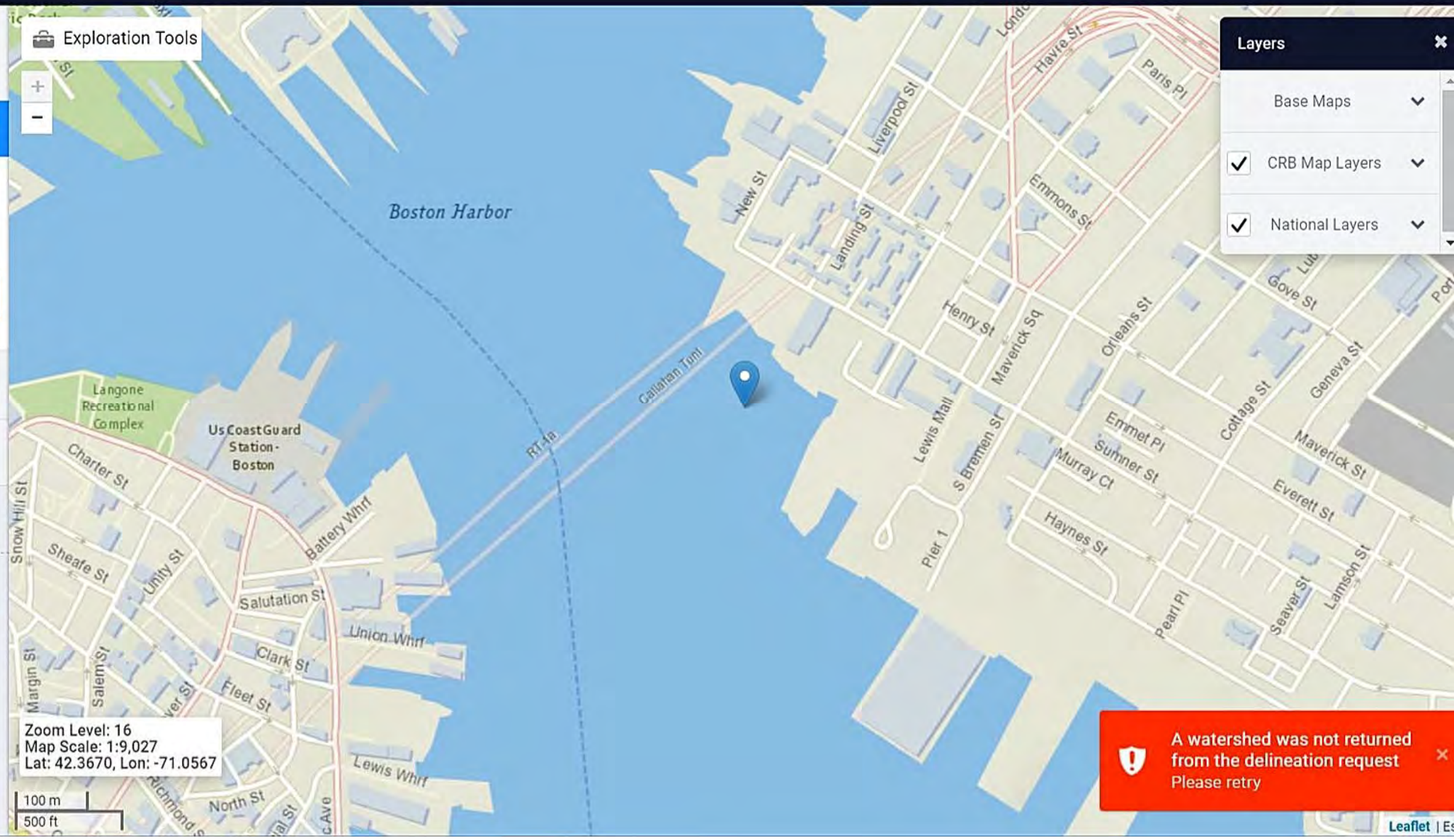
Delineate

SELECT SCENARIOS

BUILD A REPORT

POWERED BY WIM

USGS Home Contact USGS Search USGS
Accessibility FOIA Privacy Policy & Notices



**From:** Little, Shauna
**To:** Quincy Pratt; catherine.vakalopoulos@massmail.state.ma.us; Leah Zivalic
**Subject:** RE: East Boston, MA RGP
**Date:** Monday, April 16, 2018 10:39:01 AM
**Attachments:** image001.png

---

Hello,

Regarding your questions:

- Section 4.2 of the RGP says a minimum of one (1) sample is required for Activity Category III. Is one (1) sample appropriate for a property/dewatering area of this size? The NOI Requirements in Part 3.4 refer to the sampling specified in all of Part 4. This includes the NOI-specific sampling in 4.2, but also the monitoring requirements that always apply, including for the NOI. The requirements pertaining to influent, including situations where more than one sample of influent would be necessary, are found in Part 4.1.1.a of the permit (page 32 of 50). This section generally encourages contacting EPA for assistance with complex influent sample design, and I am happy to offer assistance, if desired.
- Given the discharge is to saltwater, a Dilution Factor does not apply. In this case, should we compare the source water to the TBEL criterion? The suggested electronic format for dilution factor and limit calculations will determine which limits (TBEL or WQBEL) apply based on the influent concentrations. If you wish to generally state whether your source water is above or below TBELs or WQBELs, TBELs always apply for a present parameter, and while the WQBELs don't always apply- a parameter must have reasonable potential to exceed the criteria- influent concentrations are always compared to water quality criteria. The water quality criteria are generally what are shown in the WQBEL column of the permit, though metals are shown at certain default values that may be different at your site (more so for freshwater than saltwater).

Regards,

Shauna Little
Physical Scientist
USEPA New England
5 Post Office Square, Suite 100/OEP06-1
Boston, Massachusetts 02109-3912
Phone (617)918-1989

---

**From:** Quincy Pratt [mailto:qpratt@sanbornhead.com]
**Sent:** Monday, April 16, 2018 10:07 AM
**To:** catherine.vakalopoulos@massmail.state.ma.us; Leah Zivalic <lzivalic@sanbornhead.com>
**Cc:** Little, Shauna <Little.Shauna@epa.gov>

**Subject:** RE: East Boston, MA RGP

Thank you for your informative email, Cathy. We look forward to hearing from Shauna, regarding the sampling.

Best,
Quincy

--
Quincy Pratt
Project Manager
---
SANBORN | HEAD & ASSOCIATES, INC.
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---

**From:** Vakalopoulos, Catherine (DEP) [mailto:Catherine.Vakalopoulos@MassMail.State.MA.US]
**Sent:** Friday, April 13, 2018 11:32 AM
**To:** Leah Zivalic <lzivalic@sanbornhead.com>
**Cc:** Quincy Pratt <qpratt@sanbornhead.com>; Little, Shauna <Little.Shauna@epa.gov>
**Subject:** RE: East Boston, MA RGP

Hi Leah,
I apologize for the delayed response but I had to be in the field this week on short notice and have not been able to keep up with my email. For the number of samples and WQBEL/TBEL questions, I need to send you to Shauna who I've cc'd here. She is out of the office today but she'll get back to you next week. Yes, you are correct, we do not apply a dilution factor to marine waters unless you can provide modeling or dye study results that show otherwise. I know Rich Signell from USGS did some hydrodynamic modeling in Boston Harbor for MWRA a while ago but I don't know how to apply his published paper to a specific location in Boston Harbor. We don't have a protocol for sampling in tidal areas but your plan to sample "upstream" towards the Charles and Mystic makes sense.

Please let me know if you have any further questions.

Cathy

Cathy Vakalopoulos, Massachusetts Department of Environmental Protection
1 Winter St., Boston, MA 02108, 617-348-4026
Please consider the environment before printing this e-mail

**From:** Leah Zivalic [mailto:lzivalic@sanbornhead.com]
**Sent:** Monday, April 09, 2018 10:30 AM
**To:** Vakalopoulos, Catherine (DEP)
**Cc:** Quincy Pratt
**Subject:** East Boston, MA RGP

Hello Catherine,

We are assisting a general contractor with the preparation of a Notice of Intent (NOI) for a NPDES RGP for temporary construction dewatering for a proposed groundwater discharge to the Boston Harbor. The property is located in East Boston, is approximately 3 acres, and is considered an Activity Category III (Contaminated Site). The proposed construction dewatering activities will span an approximately 30,000 square foot area and will include pumping groundwater from filtered sumps, treating the water on-site and discharging the effluent to the Boston Harbor. We were wondering if you could help us clarify a few questions we had on the NOI:

- Section 4.2 of the RGP says a minimum of one (1) sample is required for Activity Category III. Is one (1) sample appropriate for a property/dewatering area of this size?
- The proposed receiving water body is the Boston Inner Harbor. As such, the direction of flow of the proposed receiving water changes with the tide. We have assumed the receiving body of water sample will be collected in the inland direction (toward the Charles and Mystic Rivers) from the proposed discharge. Is that assumption correct? Or is there another sampling protocol we should follow for tidal areas.
- Given the discharge is to saltwater, a Dilution Factor does not apply. In this case, should we compare the source water to the TBEL criterion?

Please let us know if you have any questions or need any additional information.

Thank you,

-Leah Zivalic

Leah Zivalic
Project Engineer

SANBORN HEAD 1993 - 2018

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1 Technology Park Drive, Westford, MA 01886
T 978.392.0900 D 978.577.1018

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| | | | | |
|---|---|---|---|---|
| **Dilution Factor** | 0.0 | | | |
| **A. Inorganics** | TBEL applies if bolded | | WQBEL applies if bolded | |
| Ammonia | **Report** | mg/L | --- | |
| Chloride | **Report** | µg/L | --- | |
| Total Residual Chlorine | 0.2 | mg/L | **7.5** | µg/L |
| Total Suspended Solids | **30** | mg/L | --- | |
| Antimony | **206** | µg/L | 640 | µg/L |
| Arsenic | **104** | µg/L | 36 | µg/L |
| Cadmium | **10.2** | µg/L | 8.9 | µg/L |
| Chromium III | 323 | µg/L | **100.0** | µg/L |
| Chromium VI | **323** | µg/L | 50 | µg/L |
| Copper | 242 | µg/L | **3.7** | µg/L |
| Iron | **5000** | µg/L | --- | µg/L |
| Lead | 160 | µg/L | **8.5** | µg/L |
| Mercury | **0.739** | µg/L | 1.11 | µg/L |
| Nickel | 1450 | µg/L | **8.3** | µg/L |
| Selenium | **235.8** | µg/L | 71 | µg/L |
| Silver | **35.1** | µg/L | 2.2 | µg/L |
| Zinc | 420 | µg/L | **86** | µg/L |
| Cyanide | **178** | mg/L | 1.0 | µg/L |
| **B. Non-Halogenated VOCs** | | | | |
| Total BTEX | **100** | µg/L | --- | |
| Benzene | **5.0** | µg/L | --- | |
| 1,4 Dioxane | **200** | µg/L | --- | |
| Acetone | **7.97** | mg/L | --- | |
| Phenol | **1,080** | µg/L | 300 | µg/L |
| **C. Halogenated VOCs** | | | | |
| Carbon Tetrachloride | **4.4** | | 1.6 | µg/L |
| 1,2 Dichlorobenzene | **600** | µg/L | --- | |
| 1,3 Dichlorobenzene | **320** | µg/L | --- | |
| 1,4 Dichlorobenzene | **5.0** | µg/L | --- | |
| Total dichlorobenzene | **---** | µg/L | --- | |
| 1,1 Dichloroethane | **70** | µg/L | --- | |
| 1,2 Dichloroethane | **5.0** | µg/L | --- | |
| 1,1 Dichloroethylene | **3.2** | µg/L | --- | |
| Ethylene Dibromide | **0.05** | µg/L | --- | |
| Methylene Chloride | **4.6** | µg/L | --- | |
| 1,1,1 Trichloroethane | **200** | µg/L | --- | |
| 1,1,2 Trichloroethane | **5.0** | µg/L | --- | |
| Trichloroethylene | **5.0** | µg/L | --- | |
| Tetrachloroethylene | **5.0** | µg/L | 3.3 | µg/L |
| cis-1,2 Dichloroethylene | **70** | µg/L | --- | |

| | | | | |
|---|---|---|---|---|
| Vinyl Chloride | **2.0** | µg/L | --- | |
| **D. Non-Halogenated SVOCs** | | | | |
| Total Phthalates | **190** | µg/L | --- | µg/L |
| Diethylhexyl phthalate | 101 | µg/L | **2.2** | µg/L |
| Total Group I Polycyclic Aromatic Hydrocarbons | **1.0** | µg/L | --- | |
| Benzo(a)anthracene | **1.0** | µg/L | 0.0038 | µg/L |
| Benzo(a)pyrene | **1.0** | µg/L | 0.0038 | µg/L |
| Benzo(b)fluoranthene | **1.0** | µg/L | 0.0038 | µg/L |
| Benzo(k)fluoranthene | **1.0** | µg/L | 0.0038 | µg/L |
| Chrysene | **1.0** | µg/L | 0.0038 | µg/L |
| Dibenzo(a,h)anthracene | **1.0** | µg/L | 0.0038 | µg/L |
| Indeno(1,2,3-cd)pyrene | **1.0** | µg/L | 0.0038 | µg/L |
| Total Group II Polycyclic Aromatic Hydrocarbons | **100** | µg/L | --- | |
| Naphthalene | **20** | µg/L | --- | |
| **E. Halogenated SVOCs** | | | | |
| Total Polychlorinated Biphenyls | **0.000064** | µg/L | --- | |
| Pentachlorophenol | **1.0** | µg/L | --- | |
| **F. Fuels Parameters** | | | | |
| Total Petroleum Hydrocarbons | **5.0** | mg/L | --- | |
| Ethanol | **Report** | mg/L | --- | |
| Methyl-tert-Butyl Ether | **70** | µg/L | 20 | µg/L |
| tert-Butyl Alcohol | **120** | µg/L | --- | |
| tert-Amyl Methyl Ether | **90** | µg/L | --- | |

# APPENDIX D

# ANALYTICAL DATA REPORT

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L1813424 |
| Client: | Sanborn, Head & Associates, Inc.<br>1 Technology Park Drive<br>Westford, MA 01886 |
| ATTN: | Quincy Pratt |
| Phone: | (978) 577-1054 |
| Project Name: | 99 SUMMER STREET |
| Project Number: | 4256.00 |
| Report Date: | 04/24/18 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L1813424-01 | INFLUENT | WATER | EAST BOSTON, MA | 04/18/18 09:00 | 04/18/18 |
| L1813424-02 | RECEIVING | WATER | EAST BOSTON, MA | 04/18/18 10:30 | 04/18/18 |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

**Project Name:** 99 SUMMER STREET **Lab Number:** L1813424
**Project Number:** 4256.00 **Report Date:** 04/24/18

**Case Narrative (continued)**

Total Metals

The WG1107812-3 MS recovery for iron (0%), performed on L1813424-01, does not apply because the sample concentration is greater than four times the spike amount added.

The WG1107812-4 Laboratory Duplicate RPD for iron (55%), performed on L1813424-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Chlorine, Total Residual

The WG1107706-4 MS recovery (0%), performed on L1813424-01, is outside the acceptance criteria; however, the associated LCS recovery is within criteria. No further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 04/24/18

# ORGANICS

# VOLATILES

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA
Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/20/18 07:29
Analyst: KD

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 3.0 | -- | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 0.75 | -- | 1 |
| Chloroform | ND | | ug/l | 0.75 | -- | 1 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | -- | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 1.8 | -- | 1 |
| Dibromochloromethane | ND | | ug/l | 0.50 | -- | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 0.75 | -- | 1 |
| Tetrachloroethene | ND | | ug/l | 0.50 | -- | 1 |
| Chlorobenzene | ND | | ug/l | 0.50 | -- | 1 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | -- | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | -- | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 0.50 | -- | 1 |
| Bromodichloromethane | ND | | ug/l | 0.50 | -- | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | -- | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | -- | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | -- | 1 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | -- | 1 |
| Bromoform | ND | | ug/l | 2.0 | -- | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | -- | 1 |
| Benzene | ND | | ug/l | 0.50 | -- | 1 |
| Toluene | ND | | ug/l | 0.75 | -- | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | -- | 1 |
| Chloromethane | ND | | ug/l | 2.5 | -- | 1 |
| Bromomethane | ND | | ug/l | 1.0 | -- | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | -- | 1 |
| Chloroethane | ND | | ug/l | 1.0 | -- | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | -- | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 0.50 | -- | 1 |

**Project Name:** 99 SUMMER STREET **Lab Number:** L1813424

**Project Number:** 4256.00 **Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01 Date Collected: 04/18/18 09:00

Client ID: INFLUENT Date Received: 04/18/18

Sample Location: EAST BOSTON, MA Field Prep: Field Filtered (Dissolved Metals)

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 0.50 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | -- | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | -- | 1 |
| o-Xylene | ND | | ug/l | 1.0 | -- | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | -- | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 0.50 | -- | 1 |
| Dibromomethane | ND | | ug/l | 5.0 | -- | 1 |
| 1,4-Dichlorobutane | ND | | ug/l | 5.0 | -- | 1 |
| 1,2,3-Trichloropropane | ND | | ug/l | 5.0 | -- | 1 |
| Styrene | ND | | ug/l | 1.0 | -- | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | -- | 1 |
| Acetone | ND | | ug/l | 5.0 | -- | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | -- | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | -- | 1 |
| Vinyl acetate | ND | | ug/l | 5.0 | -- | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | -- | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | -- | 1 |
| Ethyl methacrylate | ND | | ug/l | 5.0 | -- | 1 |
| Acrylonitrile | ND | | ug/l | 5.0 | -- | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | -- | 1 |
| Tetrahydrofuran | ND | | ug/l | 5.0 | -- | 1 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | -- | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | -- | 1 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | -- | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 0.50 | -- | 1 |
| Bromobenzene | ND | | ug/l | 2.5 | -- | 1 |
| n-Butylbenzene | ND | | ug/l | 0.50 | -- | 1 |
| sec-Butylbenzene | ND | | ug/l | 0.50 | -- | 1 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | -- | 1 |
| o-Chlorotoluene | ND | | ug/l | 2.5 | -- | 1 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | -- | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/l | 0.50 | -- | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | -- | 1 |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA
Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| p-Isopropyltoluene | ND | | ug/l | 0.50 | -- | 1 |
| Naphthalene | ND | | ug/l | 2.5 | -- | 1 |
| n-Propylbenzene | ND | | ug/l | 0.50 | -- | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | -- | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | -- | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | -- | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | -- | 1 |
| Ethyl ether | ND | | ug/l | 2.5 | -- | 1 |
| Tert-Butyl Alcohol | ND | | ug/l | 10 | -- | 1 |
| Tertiary-Amyl Methyl Ether | ND | | ug/l | 2.0 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 112 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

**Project Name:** 99 SUMMER STREET
**Lab Number:** L1813424
**Project Number:** 4256.00
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA
Sample Depth:
Matrix: Water
Analytical Method: 1,8260C-SIM(M)
Analytical Date: 04/20/18 07:29
Analyst: MM

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| 1,4-Dioxane | ND | | ug/l | 3.0 | -- | 1 |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA

Sample Depth:
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 04/19/18 15:04
Analyst: AWS

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 504.1
Extraction Date: 04/19/18 11:03

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Microextractables by GC - Westborough Lab** | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | -- | 1 | A |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 04/19/18 11:47
Analyst: AWS

Extraction Method: EPA 504.1
Extraction Date: 04/19/18 11:03

| Parameter | Result | Qualifier | Units | RL | MDL | |
|---|---|---|---|---|---|---|
| Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG1107889-1 | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | -- | A |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C-SIM(M)
Analytical Date: 04/20/18 05:49
Analyst: MM

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1108305-5 | | | | | |
| 1,4-Dioxane | ND | | ug/l | 3.0 | -- |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/20/18 05:49
Analyst: MM

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1108322-5 | | | | | |
| Methylene chloride | ND | | ug/l | 3.0 | -- |
| 1,1-Dichloroethane | ND | | ug/l | 0.75 | -- |
| Chloroform | ND | | ug/l | 0.75 | -- |
| Carbon tetrachloride | ND | | ug/l | 0.50 | -- |
| 1,2-Dichloropropane | ND | | ug/l | 1.8 | -- |
| Dibromochloromethane | ND | | ug/l | 0.50 | -- |
| 1,1,2-Trichloroethane | ND | | ug/l | 0.75 | -- |
| Tetrachloroethene | ND | | ug/l | 0.50 | -- |
| Chlorobenzene | ND | | ug/l | 0.50 | -- |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | -- |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | -- |
| 1,1,1-Trichloroethane | ND | | ug/l | 0.50 | -- |
| Bromodichloromethane | ND | | ug/l | 0.50 | -- |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | -- |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | -- |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | -- |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | -- |
| Bromoform | ND | | ug/l | 2.0 | -- |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | -- |
| Benzene | ND | | ug/l | 0.50 | -- |
| Toluene | ND | | ug/l | 0.75 | -- |
| Ethylbenzene | ND | | ug/l | 0.50 | -- |
| Chloromethane | ND | | ug/l | 2.5 | -- |
| Bromomethane | ND | | ug/l | 1.0 | -- |
| Vinyl chloride | ND | | ug/l | 1.0 | -- |
| Chloroethane | ND | | ug/l | 1.0 | -- |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | -- |
| 1,2-Dichloroethene, Total | ND | | ug/l | 0.50 | -- |
| Trichloroethene | ND | | ug/l | 0.50 | -- |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/20/18 05:49
Analyst: MM

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1108322-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | -- |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | -- |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | -- |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | -- |
| p/m-Xylene | ND | | ug/l | 1.0 | -- |
| o-Xylene | ND | | ug/l | 1.0 | -- |
| Xylenes, Total | ND | | ug/l | 1.0 | -- |
| cis-1,2-Dichloroethene | ND | | ug/l | 0.50 | -- |
| Dibromomethane | ND | | ug/l | 5.0 | -- |
| 1,4-Dichlorobutane | ND | | ug/l | 5.0 | -- |
| 1,2,3-Trichloropropane | ND | | ug/l | 5.0 | -- |
| Styrene | ND | | ug/l | 1.0 | -- |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | -- |
| Acetone | ND | | ug/l | 5.0 | -- |
| Carbon disulfide | ND | | ug/l | 5.0 | -- |
| 2-Butanone | ND | | ug/l | 5.0 | -- |
| Vinyl acetate | ND | | ug/l | 5.0 | -- |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | -- |
| 2-Hexanone | ND | | ug/l | 5.0 | -- |
| Ethyl methacrylate | ND | | ug/l | 5.0 | -- |
| Acrylonitrile | ND | | ug/l | 5.0 | -- |
| Bromochloromethane | ND | | ug/l | 2.5 | -- |
| Tetrahydrofuran | ND | | ug/l | 5.0 | -- |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | -- |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | -- |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | -- |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 0.50 | -- |
| Bromobenzene | ND | | ug/l | 2.5 | -- |
| n-Butylbenzene | ND | | ug/l | 0.50 | -- |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/20/18 05:49
Analyst: MM

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1108322-5 | | | | | |
| sec-Butylbenzene | ND | | ug/l | 0.50 | -- |
| tert-Butylbenzene | ND | | ug/l | 2.5 | -- |
| o-Chlorotoluene | ND | | ug/l | 2.5 | -- |
| p-Chlorotoluene | ND | | ug/l | 2.5 | -- |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | -- |
| Hexachlorobutadiene | ND | | ug/l | 0.50 | -- |
| Isopropylbenzene | ND | | ug/l | 0.50 | -- |
| p-Isopropyltoluene | ND | | ug/l | 0.50 | -- |
| Naphthalene | ND | | ug/l | 2.5 | -- |
| n-Propylbenzene | ND | | ug/l | 0.50 | -- |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | -- |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | -- |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | -- |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | -- |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | -- |
| Ethyl ether | ND | | ug/l | 2.5 | -- |
| Tert-Butyl Alcohol | ND | | ug/l | 10 | -- |
| Tertiary-Amyl Methyl Ether | ND | | ug/l | 2.0 | -- |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 114 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET

**Project Number:** 4256.00

**Lab Number:** L1813424

**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Microextractables by GC - Westborough Lab | Associated sample(s): 01 | | Batch: WG1107889-2 | | | | | | |
| 1,2-Dibromoethane | 108 | | - | | 80-120 | - | | | A |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET

**Project Number:** 4256.00

**Lab Number:** L1813424

**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1108305-3 WG1108305-4 | | | | | | | | |
| 1,4-Dioxane | 96 | | 87 | | 70-130 | 10 | | 25 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1108322-3 WG1108322-4 | | | | | | | | |
| Methylene chloride | 98 | | 98 | | 70-130 | 0 | | 20 |
| 1,1-Dichloroethane | 100 | | 110 | | 70-130 | 10 | | 20 |
| Chloroform | 100 | | 110 | | 70-130 | 10 | | 20 |
| Carbon tetrachloride | 120 | | 110 | | 63-132 | 9 | | 20 |
| 1,2-Dichloropropane | 99 | | 110 | | 70-130 | 11 | | 20 |
| Dibromochloromethane | 96 | | 94 | | 63-130 | 2 | | 20 |
| 1,1,2-Trichloroethane | 88 | | 99 | | 70-130 | 12 | | 20 |
| Tetrachloroethene | 100 | | 87 | | 70-130 | 14 | | 20 |
| Chlorobenzene | 96 | | 96 | | 75-130 | 0 | | 25 |
| Trichlorofluoromethane | 120 | | 110 | | 62-150 | 9 | | 20 |
| 1,2-Dichloroethane | 100 | | 110 | | 70-130 | 10 | | 20 |
| 1,1,1-Trichloroethane | 110 | | 110 | | 67-130 | 0 | | 20 |
| Bromodichloromethane | 110 | | 110 | | 67-130 | 0 | | 20 |
| trans-1,3-Dichloropropene | 89 | | 100 | | 70-130 | 12 | | 20 |
| cis-1,3-Dichloropropene | 96 | | 100 | | 70-130 | 4 | | 20 |
| 1,1-Dichloropropene | 100 | | 110 | | 70-130 | 10 | | 20 |
| Bromoform | 89 | | 85 | | 54-136 | 5 | | 20 |
| 1,1,2,2-Tetrachloroethane | 79 | | 99 | | 67-130 | **22** | Q | 20 |
| Benzene | 96 | | 100 | | 70-130 | 4 | | 25 |
| Toluene | 94 | | 100 | | 70-130 | 6 | | 25 |
| Ethylbenzene | 95 | | 100 | | 70-130 | 5 | | 20 |
| Chloromethane | 98 | | 110 | | 64-130 | 12 | | 20 |
| Bromomethane | 97 | | 92 | | 39-139 | 5 | | 20 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1108322-3 WG1108322-4 | | | | | | | | |
| Vinyl chloride | 100 | | 110 | | 55-140 | 10 | | 20 |
| Chloroethane | 110 | | 120 | | 55-138 | 9 | | 20 |
| 1,1-Dichloroethene | 93 | | 93 | | 61-145 | 0 | | 25 |
| Trichloroethene | 100 | | 100 | | 70-130 | 0 | | 25 |
| 1,2-Dichlorobenzene | 92 | | 93 | | 70-130 | 1 | | 20 |
| 1,3-Dichlorobenzene | 94 | | 92 | | 70-130 | 2 | | 20 |
| 1,4-Dichlorobenzene | 93 | | 93 | | 70-130 | 0 | | 20 |
| Methyl tert butyl ether | 95 | | 100 | | 63-130 | 5 | | 20 |
| p/m-Xylene | 100 | | 100 | | 70-130 | 0 | | 20 |
| o-Xylene | 95 | | 100 | | 70-130 | 5 | | 20 |
| cis-1,2-Dichloroethene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Dibromomethane | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,4-Dichlorobutane | 86 | | 120 | | 70-130 | **33** | Q | 20 |
| 1,2,3-Trichloropropane | 84 | | 110 | | 64-130 | **27** | Q | 20 |
| Styrene | 95 | | 95 | | 70-130 | 0 | | 20 |
| Dichlorodifluoromethane | 110 | | 110 | | 36-147 | 0 | | 20 |
| Acetone | 89 | | 110 | | 58-148 | **21** | Q | 20 |
| Carbon disulfide | 79 | | 100 | | 51-130 | **23** | Q | 20 |
| 2-Butanone | 96 | | 120 | | 63-138 | **22** | Q | 20 |
| Vinyl acetate | 120 | | **140** | Q | 70-130 | 15 | | 20 |
| 4-Methyl-2-pentanone | 75 | | 94 | | 59-130 | **22** | Q | 20 |
| 2-Hexanone | 80 | | 100 | | 57-130 | **22** | Q | 20 |
| Ethyl methacrylate | 80 | | 96 | | 70-130 | 18 | | 20 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1108322-3 WG1108322-4 | | | | | | | | |
| Acrylonitrile | 94 | | 110 | | 70-130 | 16 | | 20 |
| Bromochloromethane | 110 | | 99 | | 70-130 | 11 | | 20 |
| Tetrahydrofuran | 93 | | 110 | | 58-130 | 17 | | 20 |
| 2,2-Dichloropropane | 120 | | 120 | | 63-133 | 0 | | 20 |
| 1,2-Dibromoethane | 91 | | 93 | | 70-130 | 2 | | 20 |
| 1,3-Dichloropropane | 89 | | 100 | | 70-130 | 12 | | 20 |
| 1,1,1,2-Tetrachloroethane | 100 | | 96 | | 64-130 | 4 | | 20 |
| Bromobenzene | 94 | | 93 | | 70-130 | 1 | | 20 |
| n-Butylbenzene | 89 | | 110 | | 53-136 | **21** | Q | 20 |
| sec-Butylbenzene | 93 | | 100 | | 70-130 | 7 | | 20 |
| tert-Butylbenzene | 100 | | 110 | | 70-130 | 10 | | 20 |
| o-Chlorotoluene | 91 | | 110 | | 70-130 | 19 | | 20 |
| p-Chlorotoluene | 91 | | 110 | | 70-130 | 19 | | 20 |
| 1,2-Dibromo-3-chloropropane | 79 | | 77 | | 41-144 | 3 | | 20 |
| Hexachlorobutadiene | 85 | | 74 | | 63-130 | 14 | | 20 |
| Isopropylbenzene | 94 | | 100 | | 70-130 | 6 | | 20 |
| p-Isopropyltoluene | 96 | | 100 | | 70-130 | 4 | | 20 |
| Naphthalene | 82 | | 85 | | 70-130 | 4 | | 20 |
| n-Propylbenzene | 91 | | 110 | | 69-130 | 19 | | 20 |
| 1,2,3-Trichlorobenzene | 86 | | 79 | | 70-130 | 8 | | 20 |
| 1,2,4-Trichlorobenzene | 88 | | 80 | | 70-130 | 10 | | 20 |
| 1,3,5-Trimethylbenzene | 93 | | 100 | | 64-130 | 7 | | 20 |
| 1,2,4-Trimethylbenzene | 94 | | 100 | | 70-130 | 6 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1108322-3 WG1108322-4 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | 83 | | 120 | | 70-130 | **36** | Q | 20 |
| Ethyl ether | 100 | | 110 | | 59-134 | 10 | | 20 |
| Tert-Butyl Alcohol | 84 | | 92 | | 70-130 | 9 | | 20 |
| Tertiary-Amyl Methyl Ether | 92 | | 98 | | 66-130 | 6 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | | 112 | | 70-130 |
| Toluene-d8 | 96 | | 104 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 112 | | 70-130 |
| Dibromofluoromethane | 107 | | 102 | | 70-130 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** 99 SUMMER STREET

***Project Number:*** 4256.00

***Lab Number:*** L1813424

***Report Date:*** 04/24/18

| *Parameter* | *Native Sample* | *MS Added* | *MS Found* | *MS %Recovery* | *Qual* | *MSD Found* | *MSD %Recovery* | *Qual* | *Recovery Limits* | *RPD* | *Qual* | *RPD Limits* | *Column* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107889-3 QC Sample: L1813006-01 Client ID: MS Sample | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | 0.25 | 0.239 | 96 | | - | - | | 80-120 | - | | 20 | A |
| 1,2-Dibromo-3-chloropropane | ND | 0.25 | 0.236 | 94 | | - | - | | 80-120 | - | | 20 | A |

# SEMIVOLATILES

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA
Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/19/18 20:46
Analyst: CB

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/19/18 00:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Benzidine | ND | | ug/l | 20 | -- | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 5.0 | -- | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/l | 2.0 | -- | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.0 | -- | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.0 | -- | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.0 | -- | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/l | 5.0 | -- | 1 |
| 2,4-Dinitrotoluene | ND | | ug/l | 5.0 | -- | 1 |
| 2,6-Dinitrotoluene | ND | | ug/l | 5.0 | -- | 1 |
| Azobenzene | ND | | ug/l | 2.0 | -- | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/l | 2.0 | -- | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/l | 2.0 | -- | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/l | 2.0 | -- | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/l | 5.0 | -- | 1 |
| Hexachlorocyclopentadiene | ND | | ug/l | 20 | -- | 1 |
| Isophorone | ND | | ug/l | 5.0 | -- | 1 |
| Nitrobenzene | ND | | ug/l | 2.0 | -- | 1 |
| NDPA/DPA | ND | | ug/l | 2.0 | -- | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/l | 5.0 | -- | 1 |
| Bis(2-ethylhexyl)phthalate | 3.3 | | ug/l | 3.0 | -- | 1 |
| Butyl benzyl phthalate | ND | | ug/l | 5.0 | -- | 1 |
| Di-n-butylphthalate | ND | | ug/l | 5.0 | -- | 1 |
| Di-n-octylphthalate | ND | | ug/l | 5.0 | -- | 1 |
| Diethyl phthalate | ND | | ug/l | 5.0 | -- | 1 |
| Dimethyl phthalate | ND | | ug/l | 5.0 | -- | 1 |
| Biphenyl | ND | | ug/l | 2.0 | -- | 1 |
| Aniline | ND | | ug/l | 2.0 | -- | 1 |
| 4-Chloroaniline | ND | | ug/l | 5.0 | -- | 1 |

**Project Name:** 99 SUMMER STREET
**Lab Number:** L1813424
**Project Number:** 4256.00
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA
Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2-Nitroaniline | ND | | ug/l | 5.0 | -- | 1 |
| 3-Nitroaniline | ND | | ug/l | 5.0 | -- | 1 |
| 4-Nitroaniline | ND | | ug/l | 5.0 | -- | 1 |
| Dibenzofuran | ND | | ug/l | 2.0 | -- | 1 |
| n-Nitrosodimethylamine | ND | | ug/l | 2.0 | -- | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/l | 5.0 | -- | 1 |
| p-Chloro-m-cresol | ND | | ug/l | 2.0 | -- | 1 |
| 2-Chlorophenol | ND | | ug/l | 2.0 | -- | 1 |
| 2,4-Dichlorophenol | ND | | ug/l | 5.0 | -- | 1 |
| 2,4-Dimethylphenol | ND | | ug/l | 5.0 | -- | 1 |
| 2-Nitrophenol | ND | | ug/l | 10 | -- | 1 |
| 4-Nitrophenol | ND | | ug/l | 10 | -- | 1 |
| 2,4-Dinitrophenol | ND | | ug/l | 20 | -- | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/l | 10 | -- | 1 |
| Phenol | ND | | ug/l | 5.0 | -- | 1 |
| 2-Methylphenol | ND | | ug/l | 5.0 | -- | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | -- | 1 |
| 2,4,5-Trichlorophenol | ND | | ug/l | 5.0 | -- | 1 |
| Benzoic Acid | ND | | ug/l | 50 | -- | 1 |
| Benzyl Alcohol | ND | | ug/l | 2.0 | -- | 1 |
| Carbazole | ND | | ug/l | 2.0 | -- | 1 |
| Pyridine | ND | | ug/l | 3.5 | -- | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 61 | | 21-120 |
| Phenol-d6 | 43 | | 10-120 |
| Nitrobenzene-d5 | 91 | | 23-120 |
| 2-Fluorobiphenyl | 89 | | 15-120 |
| 2,4,6-Tribromophenol | 102 | | 10-120 |
| 4-Terphenyl-d14 | 102 | | 41-149 |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA
Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/20/18 16:09
Analyst: DV

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/19/18 00:27

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS-SIM - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/l | 0.10 | -- | 1 |
| 2-Chloronaphthalene | ND | | ug/l | 0.20 | -- | 1 |
| Fluoranthene | 0.11 | | ug/l | 0.10 | -- | 1 |
| Hexachlorobutadiene | ND | | ug/l | 0.50 | -- | 1 |
| Naphthalene | ND | | ug/l | 0.10 | -- | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.10 | -- | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | -- | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.10 | -- | 1 |
| Benzo(k)fluoranthene | ND | | ug/l | 0.10 | -- | 1 |
| Chrysene | ND | | ug/l | 0.10 | -- | 1 |
| Acenaphthylene | ND | | ug/l | 0.10 | -- | 1 |
| Anthracene | ND | | ug/l | 0.10 | -- | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | -- | 1 |
| Fluorene | ND | | ug/l | 0.10 | -- | 1 |
| Phenanthrene | ND | | ug/l | 0.10 | -- | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/l | 0.10 | -- | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/l | 0.10 | -- | 1 |
| Pyrene | 0.10 | | ug/l | 0.10 | -- | 1 |
| 1-Methylnaphthalene | ND | | ug/l | 0.10 | -- | 1 |
| 2-Methylnaphthalene | ND | | ug/l | 0.10 | -- | 1 |
| Pentachlorophenol | ND | | ug/l | 0.80 | -- | 1 |
| Hexachlorobenzene | ND | | ug/l | 0.80 | -- | 1 |
| Hexachloroethane | ND | | ug/l | 0.80 | -- | 1 |

**Project Name:** 99 SUMMER STREET **Lab Number:** L1813424

**Project Number:** 4256.00 **Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01 Date Collected: 04/18/18 09:00

Client ID: INFLUENT Date Received: 04/18/18

Sample Location: EAST BOSTON, MA Field Prep: Field Filtered (Dissolved Metals)

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 41 | | 21-120 |
| Phenol-d6 | 33 | | 10-120 |
| Nitrobenzene-d5 | 63 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 15-120 |
| 2,4,6-Tribromophenol | 64 | | 10-120 |
| 4-Terphenyl-d14 | 74 | | 41-149 |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/18/18 20:29
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 04/18/18 04:36

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1107401-1 | | | | | |
| Acenaphthene | ND | | ug/l | 2.0 | -- |
| Benzidine | ND | | ug/l | 20 | -- |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 5.0 | -- |
| Hexachlorobenzene | ND | | ug/l | 2.0 | -- |
| Bis(2-chloroethyl)ether | ND | | ug/l | 2.0 | -- |
| 2-Chloronaphthalene | ND | | ug/l | 2.0 | -- |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.0 | -- |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.0 | -- |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.0 | -- |
| 3,3'-Dichlorobenzidine | ND | | ug/l | 5.0 | -- |
| 2,4-Dinitrotoluene | ND | | ug/l | 5.0 | -- |
| 2,6-Dinitrotoluene | ND | | ug/l | 5.0 | -- |
| Azobenzene | ND | | ug/l | 2.0 | -- |
| Fluoranthene | ND | | ug/l | 2.0 | -- |
| 4-Chlorophenyl phenyl ether | ND | | ug/l | 2.0 | -- |
| 4-Bromophenyl phenyl ether | ND | | ug/l | 2.0 | -- |
| Bis(2-chloroisopropyl)ether | ND | | ug/l | 2.0 | -- |
| Bis(2-chloroethoxy)methane | ND | | ug/l | 5.0 | -- |
| Hexachlorobutadiene | ND | | ug/l | 2.0 | -- |
| Hexachlorocyclopentadiene | ND | | ug/l | 20 | -- |
| Hexachloroethane | ND | | ug/l | 2.0 | -- |
| Isophorone | ND | | ug/l | 5.0 | -- |
| Naphthalene | ND | | ug/l | 2.0 | -- |
| Nitrobenzene | ND | | ug/l | 2.0 | -- |
| NDPA/DPA | ND | | ug/l | 2.0 | -- |
| n-Nitrosodi-n-propylamine | ND | | ug/l | 5.0 | -- |
| Bis(2-ethylhexyl)phthalate | ND | | ug/l | 3.0 | -- |
| Butyl benzyl phthalate | ND | | ug/l | 5.0 | -- |
| Di-n-butylphthalate | ND | | ug/l | 5.0 | -- |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/18/18 20:29
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 04/18/18 04:36

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1107401-1 | | | | | |
| Di-n-octylphthalate | ND | | ug/l | 5.0 | -- |
| Diethyl phthalate | ND | | ug/l | 5.0 | -- |
| Dimethyl phthalate | ND | | ug/l | 5.0 | -- |
| Benzo(a)anthracene | ND | | ug/l | 2.0 | -- |
| Benzo(a)pyrene | ND | | ug/l | 2.0 | -- |
| Benzo(b)fluoranthene | ND | | ug/l | 2.0 | -- |
| Benzo(k)fluoranthene | ND | | ug/l | 2.0 | -- |
| Chrysene | ND | | ug/l | 2.0 | -- |
| Acenaphthylene | ND | | ug/l | 2.0 | -- |
| Anthracene | ND | | ug/l | 2.0 | -- |
| Benzo(ghi)perylene | ND | | ug/l | 2.0 | -- |
| Fluorene | ND | | ug/l | 2.0 | -- |
| Phenanthrene | ND | | ug/l | 2.0 | -- |
| Dibenzo(a,h)anthracene | ND | | ug/l | 2.0 | -- |
| Indeno(1,2,3-cd)pyrene | ND | | ug/l | 2.0 | -- |
| Pyrene | ND | | ug/l | 2.0 | -- |
| Biphenyl | ND | | ug/l | 2.0 | -- |
| Aniline | ND | | ug/l | 2.0 | -- |
| 4-Chloroaniline | ND | | ug/l | 5.0 | -- |
| 1-Methylnaphthalene | ND | | ug/l | 2.0 | -- |
| 2-Nitroaniline | ND | | ug/l | 5.0 | -- |
| 3-Nitroaniline | ND | | ug/l | 5.0 | -- |
| 4-Nitroaniline | ND | | ug/l | 5.0 | -- |
| Dibenzofuran | ND | | ug/l | 2.0 | -- |
| 2-Methylnaphthalene | ND | | ug/l | 2.0 | -- |
| n-Nitrosodimethylamine | ND | | ug/l | 2.0 | -- |
| 2,4,6-Trichlorophenol | ND | | ug/l | 5.0 | -- |
| p-Chloro-m-cresol | ND | | ug/l | 2.0 | -- |
| 2-Chlorophenol | ND | | ug/l | 2.0 | -- |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/18/18 20:29
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 04/18/18 04:36

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1107401-1 | | | | | |
| 2,4-Dichlorophenol | ND | | ug/l | 5.0 | -- |
| 2,4-Dimethylphenol | ND | | ug/l | 5.0 | -- |
| 2-Nitrophenol | ND | | ug/l | 10 | -- |
| 4-Nitrophenol | ND | | ug/l | 10 | -- |
| 2,4-Dinitrophenol | ND | | ug/l | 20 | -- |
| 4,6-Dinitro-o-cresol | ND | | ug/l | 10 | -- |
| Pentachlorophenol | ND | | ug/l | 10 | -- |
| Phenol | ND | | ug/l | 5.0 | -- |
| 2-Methylphenol | ND | | ug/l | 5.0 | -- |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | -- |
| 2,4,5-Trichlorophenol | ND | | ug/l | 5.0 | -- |
| Benzoic Acid | ND | | ug/l | 50 | -- |
| Benzyl Alcohol | ND | | ug/l | 2.0 | -- |
| Carbazole | ND | | ug/l | 2.0 | -- |
| Pyridine | ND | | ug/l | 3.5 | -- |
| Tentatively Identified Compounds | | | | | |
| No Tentatively Identified Compounds | ND | | ug/l | | |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/18/18 20:29
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 04/18/18 04:36

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1107401-1 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 60 | | 21-120 |
| Phenol-d6 | 43 | | 10-120 |
| Nitrobenzene-d5 | 87 | | 23-120 |
| 2-Fluorobiphenyl | 90 | | 15-120 |
| 2,4,6-Tribromophenol | 108 | | 10-120 |
| 4-Terphenyl-d14 | 104 | | 41-149 |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/20/18 12:42
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/18/18 23:41

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1107727-1 | | | | | |
| Acenaphthene | ND | | ug/l | 0.10 | -- |
| 2-Chloronaphthalene | ND | | ug/l | 0.20 | -- |
| Fluoranthene | ND | | ug/l | 0.10 | -- |
| Hexachlorobutadiene | ND | | ug/l | 0.50 | -- |
| Naphthalene | ND | | ug/l | 0.10 | -- |
| Benzo(a)anthracene | ND | | ug/l | 0.10 | -- |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | -- |
| Benzo(b)fluoranthene | ND | | ug/l | 0.10 | -- |
| Benzo(k)fluoranthene | ND | | ug/l | 0.10 | -- |
| Chrysene | ND | | ug/l | 0.10 | -- |
| Acenaphthylene | ND | | ug/l | 0.10 | -- |
| Anthracene | ND | | ug/l | 0.10 | -- |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | -- |
| Fluorene | ND | | ug/l | 0.10 | -- |
| Phenanthrene | ND | | ug/l | 0.10 | -- |
| Dibenzo(a,h)anthracene | ND | | ug/l | 0.10 | -- |
| Indeno(1,2,3-cd)pyrene | ND | | ug/l | 0.10 | -- |
| Pyrene | ND | | ug/l | 0.10 | -- |
| 1-Methylnaphthalene | ND | | ug/l | 0.10 | -- |
| 2-Methylnaphthalene | ND | | ug/l | 0.10 | -- |
| Pentachlorophenol | ND | | ug/l | 0.80 | -- |
| Hexachlorobenzene | ND | | ug/l | 0.80 | -- |
| Hexachloroethane | ND | | ug/l | 0.80 | -- |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/20/18 12:42
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/18/18 23:41

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1107727-1 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 40 | | 21-120 |
| Phenol-d6 | 32 | | 10-120 |
| Nitrobenzene-d5 | 67 | | 23-120 |
| 2-Fluorobiphenyl | 77 | | 15-120 |
| 2,4,6-Tribromophenol | 62 | | 10-120 |
| 4-Terphenyl-d14 | 82 | | 41-149 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET

**Project Number:** 4256.00

**Lab Number:** L1813424

**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1107401-2 WG1107401-3 | | | | | | | | |
| Acenaphthene | 90 | | 84 | | 37-111 | 7 | | 30 |
| Benzidine | 29 | | 38 | | 10-75 | 27 | | 30 |
| 1,2,4-Trichlorobenzene | 75 | | 77 | | 39-98 | 3 | | 30 |
| Hexachlorobenzene | 102 | | 97 | | 40-140 | 5 | | 30 |
| Bis(2-chloroethyl)ether | 74 | | 80 | | 40-140 | 8 | | 30 |
| 2-Chloronaphthalene | 86 | | 84 | | 40-140 | 2 | | 30 |
| 1,2-Dichlorobenzene | 71 | | 74 | | 40-140 | 4 | | 30 |
| 1,3-Dichlorobenzene | 69 | | 73 | | 40-140 | 6 | | 30 |
| 1,4-Dichlorobenzene | 70 | | 71 | | 36-97 | 1 | | 30 |
| 3,3'-Dichlorobenzidine | 79 | | 76 | | 40-140 | 4 | | 30 |
| 2,4-Dinitrotoluene | 118 | | 111 | | 48-143 | 6 | | 30 |
| 2,6-Dinitrotoluene | 111 | | 103 | | 40-140 | 7 | | 30 |
| Azobenzene | 105 | | 99 | | 40-140 | 6 | | 30 |
| Fluoranthene | 98 | | 93 | | 40-140 | 5 | | 30 |
| 4-Chlorophenyl phenyl ether | 94 | | 90 | | 40-140 | 4 | | 30 |
| 4-Bromophenyl phenyl ether | 100 | | 96 | | 40-140 | 4 | | 30 |
| Bis(2-chloroisopropyl)ether | 73 | | 75 | | 40-140 | 3 | | 30 |
| Bis(2-chloroethoxy)methane | 80 | | 83 | | 40-140 | 4 | | 30 |
| Hexachlorobutadiene | 78 | | 78 | | 40-140 | 0 | | 30 |
| Hexachlorocyclopentadiene | 89 | | 84 | | 40-140 | 6 | | 30 |
| Hexachloroethane | 71 | | 75 | | 40-140 | 5 | | 30 |
| Isophorone | 84 | | 86 | | 40-140 | 2 | | 30 |
| Naphthalene | 80 | | 80 | | 40-140 | 0 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET

**Project Number:** 4256.00

**Lab Number:** L1813424

**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1107401-2 WG1107401-3 | | | | | | | | |
| Nitrobenzene | 86 | | 89 | | 40-140 | 3 | | 30 |
| NDPA/DPA | 97 | | 92 | | 40-140 | 5 | | 30 |
| n-Nitrosodi-n-propylamine | 83 | | 83 | | 29-132 | 0 | | 30 |
| Bis(2-ethylhexyl)phthalate | 118 | | 112 | | 40-140 | 5 | | 30 |
| Butyl benzyl phthalate | 108 | | 102 | | 40-140 | 6 | | 30 |
| Di-n-butylphthalate | 104 | | 98 | | 40-140 | 6 | | 30 |
| Di-n-octylphthalate | 107 | | 99 | | 40-140 | 8 | | 30 |
| Diethyl phthalate | 100 | | 95 | | 40-140 | 5 | | 30 |
| Dimethyl phthalate | 94 | | 91 | | 40-140 | 3 | | 30 |
| Benzo(a)anthracene | 101 | | 96 | | 40-140 | 5 | | 30 |
| Benzo(a)pyrene | 104 | | 98 | | 40-140 | 6 | | 30 |
| Benzo(b)fluoranthene | 94 | | 88 | | 40-140 | 7 | | 30 |
| Benzo(k)fluoranthene | 108 | | 105 | | 40-140 | 3 | | 30 |
| Chrysene | 92 | | 90 | | 40-140 | 2 | | 30 |
| Acenaphthylene | 96 | | 90 | | 45-123 | 6 | | 30 |
| Anthracene | 98 | | 91 | | 40-140 | 7 | | 30 |
| Benzo(ghi)perylene | 97 | | 93 | | 40-140 | 4 | | 30 |
| Fluorene | 97 | | 92 | | 40-140 | 5 | | 30 |
| Phenanthrene | 93 | | 87 | | 40-140 | 7 | | 30 |
| Dibenzo(a,h)anthracene | 99 | | 93 | | 40-140 | 6 | | 30 |
| Indeno(1,2,3-cd)pyrene | 105 | | 100 | | 40-140 | 5 | | 30 |
| Pyrene | 95 | | 87 | | 26-127 | 9 | | 30 |
| Biphenyl | 90 | | 87 | | 40-140 | 3 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET

**Project Number:** 4256.00

**Lab Number:** L1813424

**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1107401-2 WG1107401-3 | | | | | | | | |
| Aniline | 40 | | 44 | | 40-140 | 10 | | 30 |
| 4-Chloroaniline | 70 | | 71 | | 40-140 | 1 | | 30 |
| 1-Methylnaphthalene | 88 | | 86 | | 41-103 | 2 | | 30 |
| 2-Nitroaniline | 110 | | 109 | | 52-143 | 1 | | 30 |
| 3-Nitroaniline | 81 | | 76 | | 25-145 | 6 | | 30 |
| 4-Nitroaniline | 99 | | 91 | | 51-143 | 8 | | 30 |
| Dibenzofuran | 94 | | 89 | | 40-140 | 5 | | 30 |
| 2-Methylnaphthalene | 84 | | 82 | | 40-140 | 2 | | 30 |
| n-Nitrosodimethylamine | 34 | | 39 | | 22-74 | 14 | | 30 |
| 2,4,6-Trichlorophenol | 102 | | 102 | | 30-130 | 0 | | 30 |
| p-Chloro-m-cresol | **101** | Q | **99** | Q | 23-97 | 2 | | 30 |
| 2-Chlorophenol | 84 | | 89 | | 27-123 | 6 | | 30 |
| 2,4-Dichlorophenol | 93 | | 94 | | 30-130 | 1 | | 30 |
| 2,4-Dimethylphenol | 94 | | 92 | | 30-130 | 2 | | 30 |
| 2-Nitrophenol | 106 | | 110 | | 30-130 | 4 | | 30 |
| 4-Nitrophenol | **86** | Q | 79 | | 10-80 | 8 | | 30 |
| 2,4-Dinitrophenol | 122 | | 117 | | 20-130 | 4 | | 30 |
| 4,6-Dinitro-o-cresol | 129 | | 120 | | 20-164 | 7 | | 30 |
| Pentachlorophenol | 93 | | 87 | | 9-103 | 7 | | 30 |
| Phenol | 48 | | 51 | | 12-110 | 6 | | 30 |
| 2-Methylphenol | 78 | | 80 | | 30-130 | 3 | | 30 |
| 3-Methylphenol/4-Methylphenol | 80 | | 85 | | 30-130 | 6 | | 30 |
| 2,4,5-Trichlorophenol | 107 | | 104 | | 30-130 | 3 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1107401-2 WG1107401-3 | | | | | | | | |
| Benzoic Acid | 35 | | 30 | | 10-164 | 15 | | 30 |
| Benzyl Alcohol | 76 | | 77 | | 26-116 | 1 | | 30 |
| Carbazole | 98 | | 93 | | 55-144 | 5 | | 30 |
| Pyridine | 21 | | 26 | | 10-66 | 21 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 59 | | 61 | | 21-120 |
| Phenol-d6 | 49 | | 51 | | 10-120 |
| Nitrobenzene-d5 | 90 | | 94 | | 23-120 |
| 2-Fluorobiphenyl | 94 | | 95 | | 15-120 |
| 2,4,6-Tribromophenol | 115 | | 114 | | 10-120 |
| 4-Terphenyl-d14 | 108 | | 105 | | 41-149 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1107727-2 WG1107727-3 | | | | | | | | |
| Acenaphthene | 60 | | 64 | | 40-140 | 6 | | 40 |
| 2-Chloronaphthalene | 57 | | 62 | | 40-140 | 8 | | 40 |
| Fluoranthene | 65 | | 66 | | 40-140 | 2 | | 40 |
| Hexachlorobutadiene | 58 | | 66 | | 40-140 | 13 | | 40 |
| Naphthalene | 58 | | 66 | | 40-140 | 13 | | 40 |
| Benzo(a)anthracene | 67 | | 68 | | 40-140 | 1 | | 40 |
| Benzo(a)pyrene | 66 | | 67 | | 40-140 | 2 | | 40 |
| Benzo(b)fluoranthene | 68 | | 70 | | 40-140 | 3 | | 40 |
| Benzo(k)fluoranthene | 64 | | 66 | | 40-140 | 3 | | 40 |
| Chrysene | 68 | | 69 | | 40-140 | 1 | | 40 |
| Acenaphthylene | 62 | | 68 | | 40-140 | 9 | | 40 |
| Anthracene | 65 | | 66 | | 40-140 | 2 | | 40 |
| Benzo(ghi)perylene | 52 | | 54 | | 40-140 | 4 | | 40 |
| Fluorene | 64 | | 67 | | 40-140 | 5 | | 40 |
| Phenanthrene | 63 | | 64 | | 40-140 | 2 | | 40 |
| Dibenzo(a,h)anthracene | 61 | | 63 | | 40-140 | 3 | | 40 |
| Indeno(1,2,3-cd)pyrene | 59 | | 61 | | 40-140 | 3 | | 40 |
| Pyrene | 66 | | 67 | | 40-140 | 2 | | 40 |
| 1-Methylnaphthalene | 60 | | 66 | | 40-140 | 10 | | 40 |
| 2-Methylnaphthalene | 58 | | 64 | | 40-140 | 10 | | 40 |
| Pentachlorophenol | 78 | | 81 | | 40-140 | 4 | | 40 |
| Hexachlorobenzene | 69 | | 71 | | 40-140 | 3 | | 40 |
| Hexachloroethane | **28** | Q | **34** | Q | 40-140 | 19 | | 40 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1107727-2 WG1107727-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 38 | | 44 | | 21-120 |
| Phenol-d6 | 30 | | 36 | | 10-120 |
| Nitrobenzene-d5 | 60 | | 68 | | 23-120 |
| 2-Fluorobiphenyl | 70 | | 78 | | 15-120 |
| 2,4,6-Tribromophenol | 61 | | 64 | | 10-120 |
| 4-Terphenyl-d14 | 78 | | 80 | | 41-149 |

# PCBS

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA

Sample Depth:
Matrix: Water
Analytical Method: 5,608
Analytical Date: 04/23/18 16:57
Analyst: HT

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 608
Extraction Date: 04/18/18 23:36
Cleanup Method: EPA 3665A
Cleanup Date: 04/19/18
Cleanup Method: EPA 3660B
Cleanup Date: 04/19/18

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/l | 0.250 | -- | 1 | A |
| Aroclor 1221 | ND | | ug/l | 0.250 | -- | 1 | A |
| Aroclor 1232 | ND | | ug/l | 0.250 | -- | 1 | A |
| Aroclor 1242 | ND | | ug/l | 0.250 | -- | 1 | A |
| Aroclor 1248 | ND | | ug/l | 0.250 | -- | 1 | A |
| Aroclor 1254 | ND | | ug/l | 0.250 | -- | 1 | A |
| Aroclor 1260 | ND | | ug/l | 0.200 | -- | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 97 | | 30-150 | A |
| Decachlorobiphenyl | 64 | | 30-150 | A |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 5,608
Analytical Date: 04/19/18 05:46
Analyst: JW

Extraction Method: EPA 608
Extraction Date: 04/18/18 00:51
Cleanup Method: EPA 3665A
Cleanup Date: 04/18/18
Cleanup Method: EPA 3660B
Cleanup Date: 04/18/18

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1107369-1 | | | | | | |
| Aroclor 1016 | ND | | ug/l | 0.250 | -- | A |
| Aroclor 1221 | ND | | ug/l | 0.250 | -- | A |
| Aroclor 1232 | ND | | ug/l | 0.250 | -- | A |
| Aroclor 1242 | ND | | ug/l | 0.250 | -- | A |
| Aroclor 1248 | ND | | ug/l | 0.250 | -- | A |
| Aroclor 1254 | ND | | ug/l | 0.250 | -- | A |
| Aroclor 1260 | ND | | ug/l | 0.200 | -- | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 86 | | 30-150 | A |
| Decachlorobiphenyl | 87 | | 30-150 | A |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1107369-2 | | | | | | | | | |
| Aroclor 1016 | 86 | | - | | 30-150 | - | | 30 | A |
| Aroclor 1260 | 80 | | - | | 30-150 | - | | 30 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 92 | | | | 30-150 | A |
| Decachlorobiphenyl | 91 | | | | 30-150 | A |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** 99 SUMMER STREET

***Project Number:*** 4256.00

***Lab Number:*** L1813424

***Report Date:*** 04/24/18

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107369-3 QC Sample: L1800004-75 Client ID: MS Sample | | | | | | | | | | | | | |
| Aroclor 1016 | ND | 3.12 | 2.53 | 81 | | - | - | | 40-126 | - | | 30 | A |
| Aroclor 1260 | ND | 3.12 | 2.27 | 73 | | - | - | | 40-127 | - | | 30 | A |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 89 | | | | 30-150 | A |
| Decachlorobiphenyl | 85 | | | | 30-150 | A |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits | |
|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107369-4 QC Sample: L1800004-75 Client ID: DUP Sample | | | | | | | |
| Aroclor 1016 | ND | ND | ug/l | NC | | 30 | A |
| Aroclor 1221 | ND | ND | ug/l | NC | | 30 | A |
| Aroclor 1232 | ND | ND | ug/l | NC | | 30 | A |
| Aroclor 1242 | ND | ND | ug/l | NC | | 30 | A |
| Aroclor 1248 | ND | ND | ug/l | NC | | 30 | A |
| Aroclor 1254 | ND | ND | ug/l | NC | | 30 | A |
| Aroclor 1260 | ND | ND | ug/l | NC | | 30 | A |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 97 | | 92 | | 30-150 | A |
| Decachlorobiphenyl | 96 | | 88 | | 30-150 | A |

# METALS

**Project Name:** 99 SUMMER STREET
**Lab Number:** L1813424
**Project Number:** 4256.00
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA
Sample Depth:
Matrix: Water

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Antimony, Total | ND | | mg/l | 0.00400 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Arsenic, Total | 0.02106 | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Cadmium, Total | 0.00156 | | mg/l | 0.00020 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Chromium, Total | 0.1208 | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Copper, Total | 0.3293 | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Iron, Total | 80.8 | | mg/l | 0.050 | -- | 1 | 04/19/18 08:20 | 04/20/18 09:50 | EPA 3005A | 19,200.7 | PE |
| Lead, Total | 1.327 | | mg/l | 0.00050 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Mercury, Total | 0.00292 | | mg/l | 0.00020 | -- | 1 | 04/19/18 11:07 | 04/19/18 14:46 | EPA 245.1 | 3,245.1 | MG |
| Nickel, Total | 0.06046 | | mg/l | 0.00200 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Silver, Total | 0.00042 | | mg/l | 0.00040 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| Zinc, Total | 1.159 | | mg/l | 0.01000 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:35 | EPA 3005A | 3,200.8 | AM |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 0.12 | | mg/l | 0.010 | -- | 1 | | 04/19/18 14:35 | NA | 107,- | |

**Project Name:** 99 SUMMER STREET
**Lab Number:** L1813424
**Project Number:** 4256.00
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-02
Client ID: RECEIVING
Sample Location: EAST BOSTON, MA
Sample Depth:
Matrix: Water

Date Collected: 04/18/18 10:30
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Antimony, Total | ND | | mg/l | 0.00400 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Arsenic, Total | 0.00166 | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Cadmium, Total | ND | | mg/l | 0.00020 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Chromium, Total | 0.00304 | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Copper, Total | 0.00275 | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Iron, Total | 0.412 | | mg/l | 0.050 | -- | 1 | 04/19/18 08:20 | 04/20/18 11:59 | EPA 3005A | 19,200.7 | PE |
| Lead, Total | 0.00296 | | mg/l | 0.00050 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Mercury, Total | ND | | mg/l | 0.00020 | -- | 1 | 04/19/18 11:07 | 04/19/18 14:51 | EPA 245.1 | 3,245.1 | MG |
| Nickel, Total | ND | | mg/l | 0.00200 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Silver, Total | ND | | mg/l | 0.00040 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |
| Zinc, Total | ND | | mg/l | 0.01000 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:39 | EPA 3005A | 3,200.8 | AM |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1107811-1 | | | | | | | | | | |
| Antimony, Total | ND | | mg/l | 0.00400 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Arsenic, Total | ND | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Cadmium, Total | ND | | mg/l | 0.00020 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Chromium, Total | ND | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Copper, Total | ND | | mg/l | 0.00100 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Lead, Total | ND | | mg/l | 0.00050 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Nickel, Total | ND | | mg/l | 0.00200 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Silver, Total | ND | | mg/l | 0.00040 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |
| Zinc, Total | ND | | mg/l | 0.01000 | -- | 1 | 04/19/18 08:20 | 04/19/18 14:08 | 3,200.8 | AM |

**Prep Information**

Digestion Method: EPA 3005A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1107812-1 | | | | | | | | | | |
| Iron, Total | ND | | mg/l | 0.050 | -- | 1 | 04/19/18 08:20 | 04/20/18 09:41 | 19,200.7 | PE |

**Prep Information**

Digestion Method: EPA 3005A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1107895-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/l | 0.00020 | -- | 1 | 04/19/18 11:07 | 04/19/18 14:42 | 3,245.1 | MG |

**Prep Information**

Digestion Method: EPA 245.1

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1107811-2 | | | | | | | | |
| Antimony, Total | 104 | | - | | 85-115 | - | | |
| Arsenic, Total | 107 | | - | | 85-115 | - | | |
| Cadmium, Total | 106 | | - | | 85-115 | - | | |
| Chromium, Total | 100 | | - | | 85-115 | - | | |
| Copper, Total | 99 | | - | | 85-115 | - | | |
| Lead, Total | 105 | | - | | 85-115 | - | | |
| Nickel, Total | 102 | | - | | 85-115 | - | | |
| Selenium, Total | 105 | | - | | 85-115 | - | | |
| Silver, Total | 97 | | - | | 85-115 | - | | |
| Zinc, Total | 106 | | - | | 85-115 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1107812-2 | | | | | | | | |
| Iron, Total | 106 | | - | | 85-115 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1107895-2 | | | | | | | | |
| Mercury, Total | 109 | | - | | 85-115 | - | | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107811-3 QC Sample: L1813534-01 Client ID: MS Sample | | | | | | | | | | | | |
| Antimony, Total | ND | 0.5 | 0.5945 | 119 | | - | - | | 70-130 | - | | 20 |
| Arsenic, Total | 0.00278 | 0.12 | 0.1294 | 106 | | - | - | | 70-130 | - | | 20 |
| Cadmium, Total | 0.00020 | 0.051 | 0.05407 | 106 | | - | - | | 70-130 | - | | 20 |
| Chromium, Total | 0.00193 | 0.2 | 0.1977 | 98 | | - | - | | 70-130 | - | | 20 |
| Copper, Total | 0.00858 | 0.25 | 0.2604 | 101 | | - | - | | 70-130 | - | | 20 |
| Lead, Total | 0.03406 | 0.51 | 0.5580 | 103 | | - | - | | 70-130 | - | | 20 |
| Nickel, Total | 0.01388 | 0.5 | 0.5174 | 101 | | - | - | | 70-130 | - | | 20 |
| Selenium, Total | ND | 0.12 | 0.1306 | 109 | | - | - | | 70-130 | - | | 20 |
| Silver, Total | ND | 0.05 | 0.04783 | 96 | | - | - | | 70-130 | - | | 20 |
| Zinc, Total | 0.06496 | 0.5 | 0.5761 | 102 | | - | - | | 70-130 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107812-3 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | | | | | | | |
| Iron, Total | 80.8 | 1 | 45.5 | **0** | Q | - | - | | 75-125 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107812-7 QC Sample: L1813534-01 Client ID: MS Sample | | | | | | | | | | | | |
| Iron, Total | 47.5 | 1 | 44.3 | **0** | Q | - | - | | 75-125 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107895-3 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | | | | | | | |
| Mercury, Total | 0.00292 | 0.005 | 0.00742 | 90 | | - | - | | 70-130 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107895-5 QC Sample: L1813424-02 Client ID: RECEIVING | | | | | | | | | | | | |
| Mercury, Total | ND | 0.005 | 0.00482 | 96 | | - | - | | 70-130 | - | | 20 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107811-4 QC Sample: L1813534-01 Client ID: DUP Sample | | | | | | |
| Antimony, Total | ND | ND | mg/l | NC | | 20 |
| Arsenic, Total | 0.00278 | 0.00278 | mg/l | 0 | | 20 |
| Cadmium, Total | 0.00020 | ND | mg/l | NC | | 20 |
| Chromium, Total | 0.00193 | 0.00193 | mg/l | 0 | | 20 |
| Copper, Total | 0.00858 | 0.00784 | mg/l | 9 | | 20 |
| Lead, Total | 0.03406 | 0.03366 | mg/l | 1 | | 20 |
| Nickel, Total | 0.01388 | 0.01385 | mg/l | 0 | | 20 |
| Selenium, Total | ND | ND | mg/l | NC | | 20 |
| Silver, Total | ND | ND | mg/l | NC | | 20 |
| Zinc, Total | 0.06496 | 0.06401 | mg/l | 1 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107812-4 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | |
| Iron, Total | 80.8 | 45.8 | mg/l | **55** | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107812-8 QC Sample: L1813534-01 Client ID: DUP Sample | | | | | | |
| Iron, Total | 47.5 | 44.9 | mg/l | 6 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107895-4 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | |
| Mercury, Total | 0.00292 | 0.00250 | mg/l | 15 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1107895-6 QC Sample: L1813424-02 Client ID: RECEIVING | | | | | | |
| Mercury, Total | ND | ND | mg/l | NC | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-01
Client ID: INFLUENT
Sample Location: EAST BOSTON, MA

Sample Depth:
Matrix: Water

Date Collected: 04/18/18 09:00
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total Suspended | 2300 | | mg/l | 100 | NA | 20 | - | 04/19/18 12:00 | 121,2540D | JT |
| Cyanide, Total | ND | | mg/l | 0.005 | -- | 1 | 04/19/18 07:30 | 04/19/18 14:13 | 121,4500CN-CE | LH |
| Chlorine, Total Residual | ND | | mg/l | 0.02 | -- | 1 | - | 04/18/18 21:16 | 121,4500CL-D | AS |
| Nitrogen, Ammonia | 0.654 | | mg/l | 0.375 | -- | 5 | 04/19/18 03:00 | 04/19/18 21:44 | 121,4500NH3-BH | AT |
| TPH, SGT-HEM | ND | | mg/l | 4.00 | -- | 1 | 04/21/18 09:00 | 04/21/18 11:00 | 74,1664A | KZ |
| Phenolics, Total | ND | | mg/l | 0.030 | -- | 1 | 04/19/18 08:44 | 04/19/18 12:04 | 4,420.1 | BR |
| Chromium, Hexavalent | ND | | mg/l | 0.010 | -- | 1 | 04/18/18 23:24 | 04/19/18 00:12 | 1,7196A | UN |
| **Anions by Ion Chromatography - Westborough Lab** | | | | | | | | | | |
| Chloride | 125. | | mg/l | 12.5 | -- | 25 | - | 04/19/18 20:22 | 44,300.0 | AU |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

## SAMPLE RESULTS

Lab ID: L1813424-02
Client ID: RECEIVING
Sample Location: EAST BOSTON, MA

Sample Depth:
Matrix: Water

Date Collected: 04/18/18 10:30
Date Received: 04/18/18
Field Prep: Field Filtered (Dissolved Metals)

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| SALINITY | 21 | | SU | 2.0 | -- | 1 | - | 04/18/18 22:30 | 121,2520B | AS |
| pH (H) | 7.9 | | SU | - | NA | 1 | - | 04/18/18 21:48 | 121,4500H+-B | AS |
| Nitrogen, Ammonia | ND | | mg/l | 0.075 | -- | 1 | 04/19/18 03:00 | 04/19/18 21:45 | 121,4500NH3-BH | AT |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00
**Lab Number:** L1813424
**Report Date:** 04/24/18

# Method Blank Analysis
## Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1107706-1 | | | | | | | | | | |
| Chlorine, Total Residual | ND | | mg/l | 0.02 | -- | 1 | - | 04/18/18 21:16 | 121,4500CL-D | AS |
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1107732-1 | | | | | | | | | | |
| Chromium, Hexavalent | ND | | mg/l | 0.010 | -- | 1 | 04/18/18 23:24 | 04/19/18 00:08 | 1,7196A | UN |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1107765-1 | | | | | | | | | | |
| Nitrogen, Ammonia | ND | | mg/l | 0.075 | -- | 1 | 04/19/18 03:00 | 04/19/18 21:29 | 121,4500NH3-BH | AT |
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1107792-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | -- | 1 | 04/19/18 07:30 | 04/20/18 10:54 | 121,4500CN-CE | LH |
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1107890-1 | | | | | | | | | | |
| Solids, Total Suspended | ND | | mg/l | 5.0 | NA | 1 | - | 04/19/18 12:00 | 121,2540D | JT |
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1107913-1 | | | | | | | | | | |
| Phenolics, Total | ND | | mg/l | 0.030 | -- | 1 | 04/19/18 08:44 | 04/19/18 12:02 | 4,420.1 | BR |
| Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG1108472-1 | | | | | | | | | | |
| Chloride | ND | | mg/l | 0.500 | -- | 1 | - | 04/19/18 17:34 | 44,300.0 | AU |
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1108575-1 | | | | | | | | | | |
| TPH, SGT-HEM | ND | | mg/l | 4.00 | -- | 1 | 04/21/18 09:00 | 04/21/18 11:00 | 74,1664A | KZ |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1107706-2 | | | | | | | | |
| Chlorine, Total Residual | 101 | | - | | 90-110 | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1107708-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1107715-1 | | | | | | | | |
| SALINITY | 99 | | - | | | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1107732-2 | | | | | | | | |
| Chromium, Hexavalent | 94 | | - | | 85-115 | - | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1107765-2 | | | | | | | | |
| Nitrogen, Ammonia | 90 | | - | | 80-120 | - | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1107792-2 | | | | | | | | |
| Cyanide, Total | 95 | | - | | 90-110 | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1107913-2 | | | | | | | | |
| Phenolics, Total | 92 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | LCS %Recovery | LCSD %Recovery | %Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|
| Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG1108472-2 | | | | | |
| Chloride | 99 | - | 90-110 | - | |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1108575-2 | | | | | |
| TPH | 82 | - | 64-132 | - | 34 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107706-4 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | | | | | | | |
| Chlorine, Total Residual | ND | 0.248 | ND | **0** | Q | - | - | | 80-120 | - | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107732-4 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | | | | | | | |
| Chromium, Hexavalent | ND | 0.1 | 0.099 | 99 | | - | - | | 85-115 | - | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1107765-4 QC Sample: L1813534-02 Client ID: MS Sample | | | | | | | | | | | | |
| Nitrogen, Ammonia | 20.7 | 4 | 24.7 | 100 | | - | - | | 80-120 | - | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107792-4 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | | | | | | | |
| Cyanide, Total | ND | 0.2 | 0.187 | 94 | | - | - | | 90-110 | - | | 30 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107913-4 QC Sample: L1813505-02 Client ID: MS Sample | | | | | | | | | | | | |
| Phenolics, Total | ND | 0.4 | 0.40 | 100 | | - | - | | 70-130 | - | | 20 |
| Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1108472-3 QC Sample: L1813572-01 Client ID: MS Sample | | | | | | | | | | | | |
| Chloride | 131 | 20 | 155 | **119** | Q | - | - | | 90-110 | - | | 18 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1108575-4 QC Sample: L1813936-01 Client ID: MS Sample | | | | | | | | | | | | |
| TPH | ND | 20 | 11.7 | **58** | Q | - | - | | 64-132 | - | | 34 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107706-3 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | |
| Chlorine, Total Residual | ND | ND | mg/l | NC | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1107708-2 QC Sample: L1813424-02 Client ID: RECEIVING | | | | | | |
| pH (H) | 7.9 | 7.9 | SU | 0 | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1107715-2 QC Sample: L1813424-02 Client ID: RECEIVING | | | | | | |
| SALINITY | 21 | 21 | SU | 0 | | |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107732-3 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | |
| Chromium, Hexavalent | ND | ND | mg/l | NC | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1107765-3 QC Sample: L1813534-02 Client ID: DUP Sample | | | | | | |
| Nitrogen, Ammonia | 20.7 | 20.4 | mg/l | 1 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107792-3 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | |
| Cyanide, Total | ND | ND | mg/l | NC | | 30 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107890-2 QC Sample: L1813424-01 Client ID: INFLUENT | | | | | | |
| Solids, Total Suspended | 2300 | 2300 | mg/l | 0 | | 29 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1107913-3 QC Sample: L1813505-02 Client ID: DUP Sample | | | | | | |
| Phenolics, Total | ND | 0.032 | mg/l | NC | | 20 |
| Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1108472-4 QC Sample: L1813572-01 Client ID: DUP Sample | | | | | | |
| Chloride | 131 | 132 | mg/l | 1 | | 18 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1108575-3 QC Sample: L1813936-01 Client ID: DUP Sample | | | | | |
| TPH | ND | ND | mg/l | NC | 34 |

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L1813424-01A | Vial HCl preserved | A | NA | | 4.0 | Y | Absent | | 8260-SIM(14),8260(14) |
| L1813424-01B | Vial HCl preserved | A | NA | | 4.0 | Y | Absent | | 8260-SIM(14),8260(14) |
| L1813424-01C | Vial HCl preserved | A | NA | | 4.0 | Y | Absent | | 8260-SIM(14),8260(14) |
| L1813424-01D | Vial Na2S2O3 preserved | A | NA | | 4.0 | Y | Absent | | 504(14) |
| L1813424-01E | Vial Na2S2O3 preserved | A | NA | | 4.0 | Y | Absent | | 504(14) |
| L1813424-01F | Plastic 250ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | HOLD-METAL-DISSOLVED(180) |
| L1813424-01G | Plastic 250ml HNO3 preserved | A | <2 | <2 | 4.0 | Y | Absent | | CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),FE-UI(180),AG-2008T(180),AS-2008T(180),HG-U(28),SE-2008T(180),CR-2008T(180),PB-2008T(180),SB-2008T(180) |
| L1813424-01H | Plastic 250ml NaOH preserved | A | >12 | >12 | 4.0 | Y | Absent | | TCN-4500(14) |
| L1813424-01I | Plastic 500ml H2SO4 preserved | A | <2 | <2 | 4.0 | Y | Absent | | NH3-4500(28) |
| L1813424-01J | Plastic 950ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | CL-300(28),HEXCR-7196(1),TRC-4500(1) |
| L1813424-01K | Amber 1000ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | 8270TCL(7),8270TCL-SIM(7) |
| L1813424-01L | Amber 1000ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | 8270TCL(7),8270TCL-SIM(7) |
| L1813424-01M | Amber 1000ml H2SO4 preserved | A | <2 | <2 | 4.0 | Y | Absent | | TPHENOL-420(28) |
| L1813424-01N | Amber 1000ml Na2S2O3 | A | 7 | 7 | 4.0 | Y | Absent | | PCB-608(7) |
| L1813424-01O | Amber 1000ml Na2S2O3 | A | 7 | 7 | 4.0 | Y | Absent | | PCB-608(7) |
| L1813424-01P | Plastic 950ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | TSS-2540(7) |
| L1813424-01Q | Amber 1000ml HCl preserved | A | NA | | 4.0 | Y | Absent | | TPH-1664(28) |
| L1813424-01R | Amber 1000ml HCl preserved | A | NA | | 4.0 | Y | Absent | | TPH-1664(28) |
| L1813424-01X | Plastic 120ml HNO3 preserved Filtrates | A | NA | | 4.0 | Y | Absent | | HOLD-METAL-DISSOLVED(180) |
| L1813424-02A | Plastic 60ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | PH-4500(.01) |
| L1813424-02B | Amber 250ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | SALINITY(28) |



*Values in parentheses indicate holding time in days

**Project Name:** 99 SUMMER STREET
**Project Number:** 4256.00

**Lab Number:** L1813424
**Report Date:** 04/24/18

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L1813424-02C | Plastic 250ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | HOLD-METAL-DISSOLVED(180) |
| L1813424-02D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 4.0 | Y | Absent | | CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),FE-UI(180),AG-2008T(180),AS-2008T(180),HG-U(28),SE-2008T(180),CR-2008T(180),PB-2008T(180),SB-2008T(180) |
| L1813424-02E | Plastic 500ml H2SO4 preserved | A | <2 | <2 | 4.0 | Y | Absent | | NH3-4500(28) |
| L1813424-02X | Plastic 120ml HNO3 preserved Filtrates | A | NA | | 4.0 | Y | Absent | | HOLD-METAL-DISSOLVED(180) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 99 SUMMER STREET | **Lab Number:** | L1813424 |
| **Project Number:** | 4256.00 | **Report Date:** | 04/24/18 |

## GLOSSARY

### *Acronyms*

| | |
|---|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

### *Footnotes*

| | |
|---|---|
| 1 | - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method. |

### *Terms*

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### *Data Qualifiers*

| | |
|---|---|
| **A** | - Spectra identified as "Aldol Condensation Product". |
| **B** | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related |

*Report Format:* Data Usability Report

| | | | |
|---|---|---|---|
| **Project Name:** | 99 SUMMER STREET | **Lab Number:** | L1813424 |
| **Project Number:** | 4256.00 | **Report Date:** | 04/24/18 |

***Data Qualifiers***

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the reporting limit (RL) for the sample.

*Report Format:* Data Usability Report

| | | | |
|---|---|---|---|
| **Project Name:** | 99 SUMMER STREET | **Lab Number:** | L1813424 |
| **Project Number:** | 4256.00 | **Report Date:** | 04/24/18 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 624:** m/p-xylene, o-xylene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**EPA 300:** DW: Bromide
**EPA 6860:** SCM: Perchlorate
**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation
**SM4500**: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
**EPA 624**: Volatile Halocarbons & Aromatics,
**EPA 608**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

# CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4-18-18

ALPHA Job #: L1813424

ALPHA
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

## Client Information

Client: Sanborn, Head & Associates
Address: 1 Technology Park Drive
Westford, MA 01886
Phone: (978) 392-0900
Email: qpratt@sanbornhead.com

## Project Information

Project Name: 99 Summer Street
Project Location: East Boston, MA
Project #: 4256.CC
Project Manager: Quincy Pratt
ALPHA Quote #:

## Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

## Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

## Billing Information

☒ Same as Client info PO #:

## Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☒ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:
*Do NOT run ethanol
HexCr, TriCr (lab calc.)
NPDES RGP minimum levels (detection limits) must be met, see attached

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
NPDES RGP
Total RGP Package*
Dissolved RGP Metals
pH
Salinity
Ammonia

SAMPLE INFO
Filtration
☒ Field
☐ Lab to do
Preservation
☐ Lab to do

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler Initials | Sample Comments | TOTAL # BOTTLES |
|---|---|---|---|---|---|---|---|
| 13424 - 01 | Influent | 4/18/18 | 9:00 | GW | LMZ | Hold Dissolved metals | 18 |
| 02 | Receiving | 4/18/18 | 10:30 | SW | LMZ | Hold Dissolved metals | 5 |
| | ~~Trip Blank~~ LMZ | | | | | Hold LMZ | |

| Container Type | | | | | | |
|---|---|---|---|---|---|---|
| Container Type | P | P | P | A | P | |
| Preservative | C | A | A | A | D | |

**Container Type**
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

**Preservative**
A= None
B= HCl
C= $HNO_3$
D= $H_2SO_4$
E= NaOH
F= MeOH
G= $NaHSO_4$
H= $Na_2S_2O_3$
I= Ascorbic Acid
J= $NH_4Cl$
K= Zn Acetate
O= Other

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Leah Grisolia | 4/18/18 11:46 | [signature] ALPHA | 4/18/18 1146 |
| [signature] | 4/18/18 1240 | [signature] | 4/18/18 1240 |

All samples submitted are subject to Alpha's Terms and Conditions
See reverse side
FORM NO. 01-01 (rev. 12-Mar-2012)

| Parameter | Chemical Abstracts Service (CAS) Number(s) | Inorganic Test Methods | | | | |
|---|---|---|---|---|---|---|
| | | ICP/AES[1] 200.7 | ICP/MS[2] 200.8 | GFAA[3] 200.9 | Other | Notes |
| | | | | | | Digestion |
| **a. Inorganics** | | | | | | |
| Ammonia | | | | | SM[4] 4500 B and D (0.1 mg/L)<br>350.1 (0.01 mg/L) | |
| Chloride | 16887006 | | | | 300.0, SM[4] 4110 B (0.1 mg/L) | |
| Total Residual Chlorine | 7782-50-5 | | | | SM[4] 4500-Cl D (200 µg/L)<br>SM[4] 4500-Cl G (50 µg/L)<br>SM[4] 4500-Cl E | |
| Total Suspended Solids | | | | | 160.2 SM[4] 2540D (5 mg/L) | |
| Antimony | 7440360 | 20 µg/L | 0.5 µg/L | 3 µg/L | | 200 |
| Arsenic | 7440382 | 20 µg/L | 1 µg/L | 3 µg/L | | 206.5 |
| Cadmium | 7440439 | 10 µg/L | 0.2 µg/L | 0.5 µg/L | | 200 |
| Chromium III | 7440473 | 20 µg/L | 1 µg/L | 1 µg/L | | 200 |
| Chromium VI | 18540299 | | | | 7196 A (10 µg/L)<br>218.6, 1636 (1 µg/L) | |
| Copper | 7440508 | 20 µg/L | 0.2 µg/L | 3 µg/L | | 200 |
| Iron | 7439896 | 40 µg/L | 55 µg/L | | | 200 |
| Lead | 7439921 | 20 µg/L | 0.2 µg/L | 3 µg/L | | 200 |
| Mercury | 7439976 | | | | 245.1, 7470 A (0.2 µg/L)<br>245.7, 1631 (0.001 µg/L) | 3112 B |
| Nickel | 7440020 | 20 µg/L | 0.2 µg/L | 5 µg/L | | 200 |
| Selenium | 7782492 | 40 µg/L | 1 µg/L | 5 µg/L | | 200 |
| Silver | 7440224 | 10 µg/L | 0.2 µg/L | 5 µg/L | | 200 |
| Zinc | 7440666 | 15 µg/L | 2 µg/L | | | 200 |
| Cyanide | 57125 | | | | 335.4 (5 µg/L) | 4500-CN<br>OIA-1677 (5 µg/L) |

| Parameter | CAS Number(s) | Organic Test Methods | | | | |
|---|---|---|---|---|---|---|
| | | GC[5] | GC/MS[6] | HPLC[7] | State Methods[8] | Other[9] |
| 1,2 Dichloroethane | 107-06-2 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| 1,1 Dichloroethylene | 75-35-4 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| Ethylene Dibromide[17] | 106-93-4 | 8011, 504.1 (0.01 µg/L)<br>618 (1 µg/L) | SIM[10] (0.1 µg/L) | | | 524.2 (1 µg/L)<br>8260 (10 µg/L) |
| Methylene Chloride | 75-09-2 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| 1,1,1 Trichloroethane | 71-55-6 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| 1,1,2 Trichloroethane | 79-00-5 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| Trichloroethylene | 79-01-6 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| Tetrachloroethylene | 127-18-4 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| cis-1,2 Dichloroethylene | 156-59-2 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| Vinyl Chloride | 75-01-4 | 601 (0.5 µg/L) | 624 (1 µg/L) | | | 8260 (5 µg/L)<br>524.2 (0.5 µg/L) |
| **d. Non-Halogenated Semi-Volatile Organic Compounds** | | | | | | |
| Total Phthalates | 85-68-7 + 84-742 +<br>117-84-0 + 84-66-2 +<br>131-11-3 + 117-81-7 | 606 (10 µg/L) | 625 (2.5 µg/L)<br>1625 (5 µg/L) | | | 8270 (5 µg/L)<br>525.2 (0.5 µg/L) |
| Diethylhexyl phthalate | 117-81-7 | 606 (10 µg/L) | 625 (2.5 µg/L)<br>1625 (5 µg/L) | | | 8270 (5 µg/L)<br>525.2 (0.5 µg/L) |

Serial_No:04241811:19


| Parameter | CAS Number(s) | Organic Test Methods | | | | |
|---|---|---|---|---|---|---|
| | | GC[5] | GC/MS[6] | HPLC[7] | State Methods[8] | Other[9] |
| Total Group II Polycyclic Aromatic Hydrocarbons | 83-32-9 + 208-96-8 + 120-12-7 + 191-24-2 + 206-44-0 + 86-73-7 + 91-20-3 + 85-01-8 + 129-00-0 | 610 (5 µg/L) | 625 (0.5-2.5 µg/L) | 610 (0.5-2 µg/L) | MA EPH (5 µg/L) | 8270 (5 µg/L) SIM[10] (0.1 µg/L) 525.2 (0.5 µg/L) |
| Naphthalene | 91-20-3 | 610 (5 µg/L) | 625 (0.5 µg/L) | 610 (2 µg/L) | MA VPH (5 µg/L) MA EPH (5 µg/L) | 8270 (5 µg/L) SIM[10] (0.1 µg/L) 524.2 (0.5 µg/L) 8260 (2 µg/L) |
| **e. Halogenated Semi-Volatile Organic Compounds** | | | | | | |
| Total Polychlorinated Biphenyls | 1336-36-3A | 608 (0.5 µg/L) | | | | 8082 (0.5 µg/L) 1668B (0.00005 µg/L) |
| Pentachlorophenol | 87-86-5 | 604 (10 µg/L) | 625 (5 µg/L) | | | 8270 525 (5 µg/L) |
| **f. Fuels Parameters** | | | | | | |
| Total Petroleum Hydrocarbons | | | | | 1664A (5 mg/L) | |
| Ethanol | 64-17-5 | | | | | 1666/1671/D3695 |
| Methyl-tert-Butyl Ether | 1634-04-4 | | 524.2 (10 µg/L) | | MA VPH (5 µg/L) | 8260 (10 µg/L) |
| tert-Butyl Alcohol | 75-65-0 | | 524.2 (10 µg/L) | | | 624, 8260 (10 µg/L) |
| tert-Amyl Methyl Ether | 994-05-08 | | 524.2 (10 µg/L) | | | 624, 8260 (10 µg/L) |

# APPENDIX E

# ENVIRONMENTAL RECEPTORS

# MassDEP - Bureau of Waste Site Cleanup

## Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

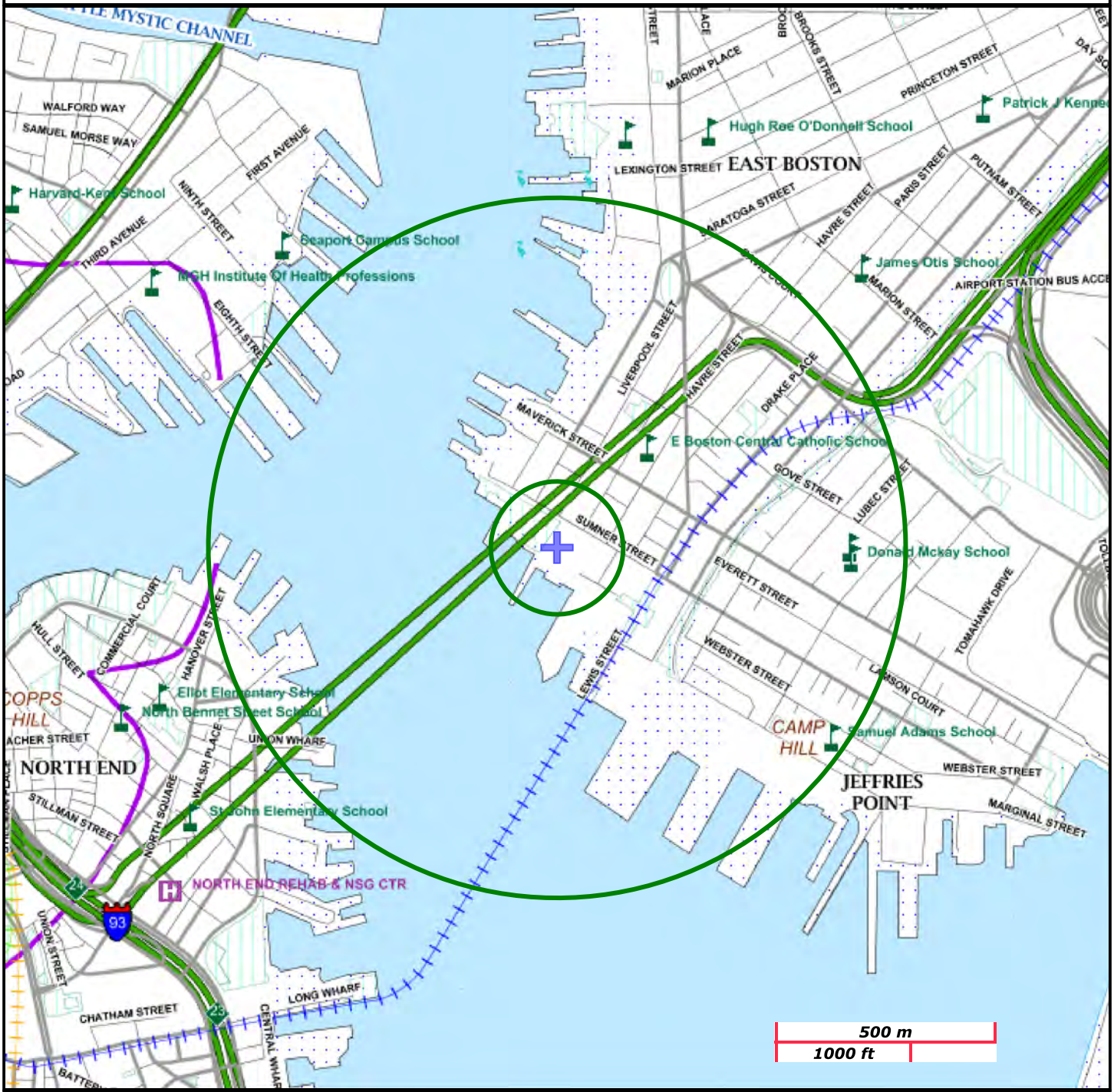
**Site Information:**

**99 SUMNER STREET BOSTON, MA**

**NAD83 UTM Meters:**
**4692817mN , 331813mE (Zone: 19)**
**May 15, 2018**

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection




Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

## Leah Zivalic

**From:** Christine Vaccaro - NOAA Federal <christine.vaccaro@noaa.gov>
**Sent:** Wednesday, May 09, 2018 9:27 AM
**To:** Leah Zivalic
**Subject:** Re: Boston, MA RGP

Although Atlantic sturgeon, sea turtles, and whales may frequent Massachusetts Bay, based on the location and nature of your discharge, we would not expect any of these species to be exposed to the effects of this project.

Cheers,
Chris

Chris Vaccaro
Fisheries Biologist
Protected Resources Division
NOAA Fisheries, Greater Atlantic Region
Gloucester, MA
Phone: 978-281-9167
Email: christine.vaccaro@noaa.gov

For additional ESA Section 7 information and Critical Habitat guidance, please see:
www.greateratlantic.fisheries.noaa.gov/protected/section7

On Wed, May 9, 2018 at 9:25 AM, Leah Zivalic <lzivalic@sanbornhead.com> wrote:

> Good Morning Chris,
>
> I am requesting information to be included as part of a Notice of Intent (NOI) for a Remediation General Report (RGP). The NOI is for construction dewatering during excavation activities at 99 Sumner Street in East Boston, Massachusetts. Effluent, after passing through a fractionalization tank and bag filters, will
>
> be discharged to the Inner Boston Harbor in East Boston, Massachusetts via an outfall.
>
> As part of the application to the USEPA for the RGP, we need to investigate whether this proposed temporary discharge has the potential to adversely affect any federally listed species in the reach of the Boston Inner Harbor located downstream of the discharge point.
>
> Thank you in advance for your assistance, and please let me know if there is any additional information that I can provide.

-Leah

Leah Zivalic
Project Engineer
_____

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_____
*This message and any attachments are intended for the individual or entity named above and may contain privileged or confidential information. If you are not the intended recipient, please do not forward, copy, print, use or disclose this communication to others; please notify the sender by replying to this message and then delete the message and any attachments.*

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To:
Consultation Code: 05E1NE00-2018-SLI-1825
Event Code: 05E1NE00-2018-E-04220
Project Name: 99 Sumner Street

May 14, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**New England Ecological Services Field Office**
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

# Project Summary

Consultation Code: 05E1NE00-2018-SLI-1825

Event Code: 05E1NE00-2018-E-04220

Project Name: 99 Sumner Street

Project Type: DEVELOPMENT

Project Description: East Boston, Massachusetts 02128

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.368816960647436N71.04283558191793W


Counties: Suffolk, MA

# Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# APPENDIX F

# NATIONAL REGISTER OF HISTORIC PLACES

**Appendix F**
**National Register of Historic Places**
**Research Documentation**
99 Sumner Street
East Boston, Massachusetts

| Site Name | Address | Date Listed |
|---|---|---|
| East Boston High School, Old | 127 Marion St. | 3/15/2006 |
| Eagle Hill Historic District | Roughly bounded by Border, Lexington, Trenton, and Falcon Sts. | 2/26/1998 |
| Donald McKay House | 78-80 White St. | 6/2/1982 |

Notes:
Sanborn, Head & Associates, Inc. (Sanborn Head) conducted a review of the National Register of Historic Places within East Boston, Massachusetts. The search returned 3 results. The Site is not listed in the National Register of Historical Places.