



HALEY & ALDRICH, INC.  
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16 June 2017  
File No. 128458-002

US Environmental Protection Agency  
Office of Ecosystem Protection  
5 Post Office Square – Suite 100 (OEP06-01)  
Boston, MA 02109-3912

Attention: EPA/OEP RGP Applications Coordinator

Subject: Temporary Construction Dewatering  
Seaport Square Block M  
Boston, Massachusetts

Dear Ms. Little:

On behalf of our client, Boston Seaport M1&2 Land, LLC, Haley & Aldrich, Inc. (Haley & Aldrich) has prepared this submission to facilitate off-site discharge of temporary dewatering during building construction activities at the proposed Seaport Square Block M development (the “site”), located in the Seaport area of South Boston, Massachusetts. The information presented herein has been prepared to follow requirement of the 2016 US EPA National Pollutant Discharge Elimination System (NPDES) General Remediation General Permit (RGP).

Per a telephone conversation with Ms. Shelly Puleo of US EPA on 30 September 2016, and per previous Haley & Aldrich correspondence with EPA staff regarding the expired 2010 NPDES RGP permit, Haley & Aldrich provided a Notice of Intent (NOI) letter package and applicable documentation to EPA on 11 November 2016 to facilitate temporary dewatering at the project site during the interim period from when the 2010 NPDES RGP had expired and when the 2017 NPDES RGP became available. As required by the 2017 NPDES RGP, we are submitting this NOI application seeking coverage under the NPDES RGP permit for existing discharges.

#### **Site Location**

The subject site consists of Blocks M1 and M2 of the Seaport Square development (together referred to as Block M) totaling approximately 3.27 acres located at 145 Seaport Boulevard (formerly Northern Avenue), which are developed as an active surface grade parking area operated by LAZ parking. The Massachusetts Bay Transportation Authority (MBTA) Silver Line Tunnel runs underground through Block M.

The site is bordered by Seaport Boulevard beyond which are restaurants, new construction, and the Boston Inner Harbor to the north, B Street beyond which is a commercial office building to the east, Congress Street beyond which are on and off ramps for the Interstate 90 to the south and East Service

Road beyond which is an active construction site. Site grades are general flat, ranging from approximately El. 16 to 20 across much of the site. Elevations are in feet (ft) and are referenced to the Boston City Base (BCB).

### **Site History**

Haley & Aldrich assessed past and present usage and filling history of the site through a review of available historical records including Sanborn maps dated 1888 to 2002 and documentation in "Gaining Ground: A History of Landmaking in Boston".<sup>1</sup>

Prior to the mid-1800s, the area in the vicinity of the site was a tidal flat. From the mid-1860s through 1880s, the majority of the tidal flats were filled, and the area became a center for railroad and shipping commerce for the remainder of the 1800s through the early 1900s. According to Gaining Ground, the site is located within a 50-acre lot owned by the New York & New England Railroad, which filled the property in the 1880s and 1890s with "gravel, ash, and refuse". The railroad company developed the site as a terminal ground.

In the late 1970s/early 1980s, the railroad terminal was decommissioned with rail spurs and support buildings removed. In the late 80's and 90's a warehouse on the property became the New England Seafood Cold Storage Center, which was later demolished for the Silver Line Tunnel construction. The parcel has been used for parking since 1998 until start of construction in February 2017.

### **Proposed Construction**

The proposed mixed-use development includes the construction of three residential towers varying in height up to 21 stories (designated Tower 1, 2 and 3) over a 2 level retail podium, courtyard area and pedestrian walkway. Two below grade parking garages (separated by the existing below-grade Massachusetts Bay Transportation Authority (MBTA) Silver Line tunnel) will be constructed. The northern side of the site will be occupied by a three level below-grade parking garage (North Garage) with a lowest level floor slab at El. -23. The southern side of the site will be occupied by a two level below-grade parking garage (South Garage) having a lowest level floor slab at El. -10.5. A pedestrian tunnel is planned to connect between the upper level of the two garages. The general plan configuration of the proposed foundation walls for the below-grade garages is shown on Figure 2.

Construction of the underground garages and foundations will require excavations extending from current ground surface down to approximately El. -30 (North Garage) and -17.5 ft (South Garage), corresponding to excavation depths of about 56 and 37 ft, respectively, below current site grades. The excavations are expected to extend through Fill, Organic Soils, Marine (sand) Deposits, and terminate within the Marine Deposits. Soil stabilization, pre-excavation to remove obstructions, and slurry wall installation is currently underway at the site.

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<sup>1</sup> Seasholes, N.S. (2003). Gaining Ground: A History of Landmaking in Boston. Cambridge, MA: The MIT Press.

## Regulatory Background

A Release Notification Form (RNF) for a portion of the subject site (former New England Seafood Center) was submitted to MassDEP on 1 April 1996 and MassDEP assigned RTN 3-13624 to the Disposal Site. RTN 3-13624 is an "Umbrella RTN" which incorporates over 15 releases within the Massachusetts Bay Transportation Authority (MBTA) South Boston Piers Transit Project alignment (Silver Line or Transitway). The "Umbrella RTN" was assigned to the former the New England Seafood Center at 145 Northern Avenue because it was the first disposal site associated with the Transitway project. The Transitway was given Special Project Designation (SPD) by MassDEP in 1997. RTN 3-16613, associated with a UST removal at the site, was also linked to RTN 3-13624 in May 1998 through an IRA Completion Report.

A number of explorations were conducted at the subject site and surrounding properties since the 1990s in connection with the MBTA Transitway project. In summary, previous chemical testing within the Transitway project area identified the presence of polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH) and metals exceeding MCP RCS-1 Reportable Concentrations in soil. Contaminants were not identified in groundwater above applicable RCGW-2 Reportable Concentrations.

Haley & Aldrich, on behalf of Boston Seaport M1&2 Land, LLC, prepared a "White Knight" Tier Classification for Re-Establishment of Response Action Deadlines for the portion of RTN 3-13624 and RTN 3-16613 Disposal Sites corresponding to Seaport Square Block M. The White Knight Tier Classification was submitted to MassDEP on 24 February 2016, and describes regulatory history associated with the Seaport Square Block M site.

Chemical testing at the site during 2015 and 2016 soil precharacterization programs identified the presence of polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), VOCs and metals exceeding MCP RCS-1 Reportable Concentrations in soil. The chemical constituents detected at the subject site are considered consistent with this history of the South Boston Seaport area and anthropogenic conditions associated with historic urban fill.

A Revised RNF was submitted to MassDEP on 15 August 2016 in order to identify compounds associated with RTN 3-13624 which were not previously reported on the original RNF. These compounds detected during the 2015 and 2016 precharacterization program are generally in the same class of compounds as described in previous submittals under RTN 3-13624, and/or exceed the current applicable RCS-1 reportable concentrations. A Release Abatement Measure (RAM) Plan, prepared by Haley & Aldrich for the Seaport Square Block M project, RTN 3-13624 and 3-16613, was subsequently submitted to MassDEP on 16 August 2016. RAM Status Report No. 1 was submitted to MassDEP on 13 December 2016 and covered the period between 16 August 2016 and 30 November 2016. RAM Status Report No 2 will be submitted to MassDEP in June and will cover the period between 1 December 2016 and 20 May 2017. Soil and groundwater management activities will be conducted under the MCP framework of the August 2016 RAM Plan and the NPDES RGP requested herein.

### **Current Groundwater Quality Information**

To evaluate groundwater quality at the site and in preparation for obtaining a temporary construction dewatering permit, two groundwater samples were collected obtained from the observation wells in March 2016; HA-M2-11 located on the M2 portion of the site, and HA-M1-14 located on the M1 portion. The groundwater samples were submitted to Alpha Analytical, Inc. of Westborough, Massachusetts (Alpha Analytical) for analysis of VOCs, SVOCs, PAHs, total metals, dissolved metals, TPH, pesticides, PCBs, Total Suspended Solids (TSS), chloride, total cyanide, amenable cyanide, physiologically available cyanide, total phenolics and total residual chlorine. Results of the analyses indicate naphthalene, iron, nickel, total suspended solids above 2010 NPDES RGP effluent criteria, but below the applicable RCGW-2 Reportable Concentrations. The location of sampling and results of water quality testing conducted in March 2016 were summarized in the NPDES RGP application submitted to EPA on 10 November 2016.

On 7 April 2017, an additional groundwater sample was collected from HA-M2-11 to meet the requirements of the 2016 NPDES RGP NOI. The groundwater sample was submitted to Alpha Analytical for analysis of VOCs, SVOCs, PAHs, Total Metals, TPH, PCBs, TSS, Total Residual Chlorine, Chloride, Total Cyanide, Ammonia, Total Phenolics, ethyl alcohol and hardness. The location of the observation well HA-M2-11 is shown on Figure 2. The results of the 7 April 2017 sampling are provided on Table 1. Laboratory Reports are enclosed in Appendix B.

### **Ethanol Sampling**

Ethanol sampling was conducted on the groundwater sample collected on 7 April 2017 and analyzed via Method 8015D. Although only methods 1666/1671/D3695 are supported under the 2016 RGP requirements, the ethanol was not detected and the compound is not considered a constituent of concern at the site. The site history does not suggest that ethanol was stored at the property, or that a petroleum product containing ethanol was released at the site. Ethanol has been increasingly used in fuels since 2006 (according to the 2016 NOI Fact Sheet), and according to site history, the site has been used for cold storage and a parking lot since the late 80s. During this time, no fuel spills were reported at the site.

### **Receiving Waters Sampling and Dilution Factor**

On 18 May 2017, one sample was collected from the outfall location into the Boston Harbor using a disposable polyethylene bailer. The sample was submitted to Alpha Analytical and analyzed for salinity, ammonia and pH. The laboratory report is enclosed in Appendix B.

The pH and temperature readings collected in the field were used to calculate the site Water Quality Based Effluent Limitations (WQBELs). It is our understanding that since the receiving water is a saltwater body, hardness does not need to be analyzed on either the effluent water or receiving water. We have additionally confirmed with the MassDEP that the dilution factor for the receiving waters is 1.

### **Effluent Criteria Determination**

The EPA suggested WQBEL Calculation spreadsheet was used to calculate the effluent criteria for the site. Groundwater and Receiving Water data were input and the resulting criteria was tabulated in the attached Table I. As requested by EPA, the Microsoft Excel spreadsheet for the WQBEL calculation will be submitted to the EPA via email, for their review upon submission of this NOI.

### **Dewatering System and Off-site Discharge**

During construction of the building, it will be necessary to perform temporary dewatering to control surface water runoff from precipitation, groundwater seepage and construction-generated water to enable construction in-the-dry. Construction and construction dewatering activities are currently anticipated to be required for a period of up to 24 months beginning in May 2017. On average, we estimate effluent discharge rates of about 200 gallons per minute (gpm), with occasional peak flows of approximately 300 gpm during significant precipitation events. Temporary dewatering will be conducted from sumps located in excavations.

Construction dewatering will include piping and discharging to storm drains located near the site that discharge into the Boston Harbor. An effluent treatment system has been designed by the Contractor to meet the 2016 RGP Discharge Effluent Criteria. The contractor's dewatering submittal documents are included in Appendix C. Prior to discharge, collected water will be routed through a sedimentation tank and a bag filter and other necessary treatment components, to remove suspended solids and undissolved chemical constituents, as shown on Figure 3.

### **Owner and Operator Information**

***Owner:***

Boston Seaport M1&2 Land, LLC  
101 Seaport Blvd, Ste. 602  
Boston, MA 02110  
Attn: Alexander Shing

***Operator:***

John Moriarty & Associates  
3 Church St, Ste 2  
Winchester, MA 01890  
Attn: Christopher Moy

### **Appendices**

The completed NOI form as provided in the RGP is enclosed in Appendix A. The laboratory data reports for water samples collected are provided in Appendix B. The contractor's dewatering submittal documents are included in Appendix C.

A copy of the approved Boston Water and Sewer Condition (BWSC) permit is enclosed in Appendix D. Note that the BWSC approval is based on the information in the previously submitted NOI package. A copy of this NOI package will be provided to BWSC for their reference.

Documentation of national historic places and endangered species in relation to the site are enclosed in Appendices E and F respectively. No national historic places are located on or abutting the site. Two endangered species were recorded for the project site area; from communication with the Endangered Species Program Supervisor at the New England Fish and Wildlife Office, it was determined that the

species would not be present at the site due to lack of habitat at the site. A letter of determination is enclosed in Appendix F.

A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, will be available at the site and is not being submitted with this NOI.

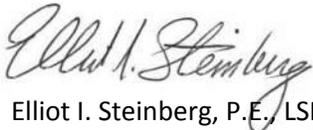
**Closing**

Thank you very much for your consideration. Please feel free to contact us should you wish to discuss the information contained herein or if you need additional information.

Sincerely yours,  
HALEY & ALDRICH, INC.



Lina M. Juozelskis, E.I.T.  
Staff Engineer - Environmental



Elliot I. Steinberg, P.E., LSP  
Senior Associate

**Attachments:**

- Table 1 – Summary of Groundwater Quality Data
- Figure 1 – Site Locus
- Figure 2 – Site and Subsurface Exploration Location Plan
- Figure 3 – Proposed Treatment System Schematic
- Appendix A – Notice of Intent (NOI)
- Appendix B – Laboratory Data Reports
- Appendix C – Contractor’s Dewatering Submittal
- Appendix D – BWSC Permit
- Appendix E – National Register of Historic Places Documentation
- Appendix F – Endangered Species Act Documentation

- c: Boston Global Investors, LLC; Attn: Scott Summers  
Boston Seaport M1&2 Land, LLC; Attn: Michael Schumacher

**TABLE I - SUMMARY OF GROUNDWATER QUALITY DATA**  
**SEAPORT SQUARE BLOCK M**  
**145 SEAPORT BOULEVARD**  
**BOSTON, MASSACHUSETTS**  
**FILE NO.: 128458-002**

<b>SAMPLING DESIGNATION</b> <b>SAMPLING DATE</b> <b>LAB SAMPLE ID</b>	<b>2017 NPDES RGP</b> <b>PARCEL M CRITERIA</b>	<b>HA-M2-11</b> <b>3/3/2016</b> <b>L1605984-01</b>	<b>HA-M1-14</b> <b>3/4/2016</b> <b>L1606261-01</b> <b>L1606261-01 R1</b>	<b>HA-M2-11(OW)</b> <b>4/7/2017</b> <b>L1710924-01</b> <b>L1710924-01 R1</b>	<b>RECEIVING</b> <b>WATERS-2017</b> <b>5/25/2017</b> <b>L1716347-01</b>
<b>VOCs (ug/L)</b>					
1,1,1-Trichloroethane	200	ND(0.5)	ND(0.5)	ND(2.5)	-
1,1,2-Trichloroethane	5	ND(0.75)	ND(0.75)	ND(3.8)	-
1,1-Dichloroethane	70	ND(0.75)	ND(0.75)	ND(3.8)	-
1,1-Dichloroethene	3.2	ND(0.5)	ND(0.5)	ND(2.5)	-
1,2-Dibromoethane	0.05	ND(2)	ND(2)	ND(10)	-
1,2-Dichlorobenzene	600	ND(2.5)	ND(2.5)	ND(12)	-
1,2-Dichloroethane	5	ND(0.5)	ND(0.5)	ND(2.5)	-
1,3-Dichlorobenzene	320	ND(2.5)	ND(2.5)	ND(12)	-
1,4-Dichlorobenzene	5	ND(2.5)	ND(2.5)	ND(12)	-
Acetone	7970	12	ND(5)	ND(25)	-
Benzene	5	ND(0.5)	ND(0.5)	ND(2.5)	-
Carbon tetrachloride	4.4	ND(0.5)	ND(0.5)	ND(2.5)	-
cis-1,2-Dichloroethene	70	ND(0.5)	ND(0.5)	ND(2.5)	-
Ethylbenzene	Total BTEX	ND(0.5)	ND(0.5)	ND(2.5)	-
Methyl tert butyl ether	70	ND(1)	ND(1)	ND(5)	-
Methylene chloride	4.6	ND(3)	ND(3)	ND(15)	-
Naphthalene	20	170	ND(2.5)	39	-
o-Xylene	Total BTEX	ND(1)	ND(1)	ND(5)	-
p/m-Xylene	Total BTEX	ND(1)	ND(1)	ND(5)	-
Tert-Butyl Alcohol	120	ND(10)	ND(10)	ND(50)	-
Tertiary-Amyl Methyl Ether	90	ND(2)	ND(2)	ND(10)	-
Tetrachloroethene	5	ND(0.5)	ND(0.5)	ND(2.5)	-
Toluene	Total BTEX	ND(0.75)	ND(0.75)	ND(3.8)	-
Trichloroethene	5	ND(0.5)	ND(0.5)	ND(2.5)	-
Vinyl chloride	2	ND(1)	ND(1)	ND(5)	-
Xylenes, Total	Total BTEX	ND(1)	ND(1)	ND(5)	-
<b>Total VOCs</b>	NA	182	ND	39	-
<b>Total BTEX</b>	100	ND	ND	ND	-
<b>Volatile Organics by GC/MS-SIM (ug/L)</b>					
1,4-Dioxane	200	ND(3)	ND(3)	ND(15)	-
<b>SVOCs by GC/MS (ug/L)</b>					
Bis(2-ethylhexyl)phthalate	Total Phthalates	ND(3)	ND(3)	4.1	-
Butyl benzyl phthalate	Total Phthalates	ND(5)	ND(5)	ND(5)	-
Carbazole	NA	6	ND(2)	3.8	-
Di-n-butylphthalate	Total Phthalates	ND(5)	ND(5)	ND(5)	-
Di-n-octylphthalate	Total Phthalates	ND(5)	ND(5)	ND(5)	-
Dibenzofuran	NA	9.9	ND(2)	5	-
Diethyl phthalate	Total Phthalates	ND(5)	ND(5)	ND(5)	-
Dimethyl phthalate	Total Phthalates	ND(5)	ND(5)	ND(5)	-
Phenol	1080	ND(5)	ND(5)	ND(5)	-
Pyridine		ND(5)	ND(5)	-	-
<b>Total SVOCs</b>	NA	15.9	ND	12.9	-
<b>Total Phthalates</b>	190	ND	ND	4.1	-
<b>SVOCs by GC/MS-SIM (ug/L)</b>					
1-Methylnaphthalene	NA	9.8	ND(0.2)	3.5	-
2-Chloronaphthalene	NA	ND(0.8)	ND(0.2)	ND(0.2)	-
2-Methylnaphthalene	NA	10	ND(0.2)	2.6	-
Acenaphthene	Total Group II PAHs	23	0.12	10	-
Acenaphthylene	Total Group II PAHs	1.1	ND(0.2)	1.4	-
Anthracene	Total Group II PAHs	2.6	ND(0.2)	1.6	-
Benzo(a)anthracene	Total Group I PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-
Benzo(a)pyrene	Total Group I PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-
Benzo(b)fluoranthene	Total Group I PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-
Benzo(ghi)perylene	Total Group II PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-

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Benzo(k)fluoranthene	Total Group I PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-
Chrysene	Total Group I PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-
Dibenzo(a,h)anthracene	Total Group I PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-
Fluoranthene	Total Group II PAHs	2.6	ND(0.2)	1.1	-
Fluorene	Total Group II PAHs	14	ND(0.2)	5.4	-
Indeno(1,2,3-cd)pyrene	Total Group I PAHs	ND(0.8)	ND(0.2)	ND(0.2)	-
Naphthalene	20	48	0.41	28	-
Pentachlorophenol	1	ND(3.2)	ND(0.8)	ND(0.8)	-
Phenanthrene	Total Group II PAHs	11	ND(0.2)	2.8	-
Pyrene	Total Group II PAHs	1.4	ND(0.2)	0.65	-
<b>Total SVOCs</b>	NA	123.5	0.53	57.05	-
<b>Total Group I PAHs</b>	1	ND	ND	ND	-
<b>Total Group II PAHs</b>	100	55.7	1.32	22.95	-
<b>Microextractables by GC (ug/L)</b>					
1,2-Dibromo-3-chloropropane	NA	-	-	ND(0.011)	-
1,2-Dibromoethane	NA	ND(0.01)	ND(0.011)	ND(0.011)	-
<b>Total Metals (ug/L)</b>					
Antimony, Total	206	ND(2)	ND(2)	ND(4)	-
Arsenic, Total	104	2.2	0.6	3.09	-
Cadmium, Total	10.2	ND(0.2)	ND(0.2)	ND(0.2)	-
Chromium, Total	323	25.2	1.7	1.21	-
Copper, Total	242	1.3	ND(1)	ND(1)	-
Iron, Total	5000	18000	23000	18000	-
Lead, Total	160	2.1	1.2	0.98	-
Mercury, Total	0.739	ND(0.2)	ND(0.2)	ND(0.2)	-
Nickel, Total	1450	17.5	2.6	ND(2)	-
Selenium, Total	235.8	ND(5)	ND(5)	ND(5)	-
Silver, Total	35.1	ND(0.4)	ND(0.4)	ND(0.4)	-
Zinc, Total	420	ND(10)	ND(10)	ND(10)	-
<b>Dissolved Metals (ug/L)</b>					
Antimony	NA	ND(2)	ND(2)	-	-
Arsenic	NA	0.7	0.5	-	-
Cadmium	NA	ND(0.2)	ND(0.2)	-	-
Chromium	NA	1.8	1.3	-	-
Copper	NA	ND(1)	ND(1)	-	-
Iron	NA	1500	12000	-	-
Lead	NA	0.8	ND(0.5)	-	-
Mercury	NA	ND(1)	ND(0.2)	-	-
Nickel	NA	18.1	2.8	-	-
Selenium	NA	ND(5)	ND(5)	-	-
Silver	NA	ND(0.4)	ND(0.4)	-	-
Zinc	NA	ND(10)	ND(10)	-	-
<b>TPH, SGT-HEM (ug/L)</b>	5	ND(4000)	ND(4000)	ND(4000)	-
<b>PCBs (ug/L)</b>					
Aroclor 1016	0.000064	ND(0.25)	ND(0.25)	ND(0.25)	-
Aroclor 1221	0.000064	ND(0.25)	ND(0.25)	ND(0.25)	-
Aroclor 1232	0.000064	ND(0.25)	ND(0.25)	ND(0.25)	-
Aroclor 1242	0.000064	ND(0.25)	ND(0.25)	ND(0.25)	-
Aroclor 1248	0.000064	ND(0.25)	ND(0.25)	ND(0.25)	-
Aroclor 1254	0.000064	ND(0.25)	ND(0.25)	ND(0.25)	-
Aroclor 1260	0.000064	ND(0.25)	ND(0.25)	ND(0.2)	-
<b>Total PCBs</b>	0.5	ND	ND	ND	-
<b>General Chemistry (ug/L)</b>					

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Total Residual Chlorine Chloride	50 Report Only	ND(20) 1260000	ND(20) 1500000	ND(20) 1370000	- -
Hexavalent Chromium	323	ND(10)	ND(10)	ND(10)	-
Trivalent Chromium	323	-	-	ND(10)	-
Total Cyanide	178000	ND(5)	ND(5)	ND(10)	-
Cyanide, Physiologically Available	NA	ND(5)	ND(5)	-	-
Cyanide, Amenable	NA	ND(10)	ND(10)	-	-
Nitrogen Ammonia	Report Only	-	-	2700	92
Total Phenolics	NA	ND(30)	ND(30)	ND(30)	-
Total Suspended Solids	30000	35000	53000	28000	-
Ethyl Alcohol	Report Only	-	-	ND(2000)	-
Hardness	NA	-	-	390000	-
Salinity	NA	-	-	-	8.3
<b>Field Parameters:</b>					
pH	Report Only	-	-	7.05	ND(8.02)
Temperature (degrees Celcius)	Report Only	-	-	7.1	20.8

**ABBREVIATIONS:**

NA: Criteria is not applicable.  
ND(2.5): Not detected; number in parentheses is one-half the laboratory reporting limit  
VOCs: Volatile Organic Compounds  
SVOCs: Semi-Volatile Organic Compounds  
PCBs: Polychlorinated Biphenyls  
TPH: Total Petroleum Hydrocarbons  
ug/L: microgram per liter  
- : Not analyzed

**NOTES:**

1. Shaded values indicate an exceedance of NPDES RGP Limits
2. Analytes detected in at least one sample are reported herein. For a complete list of analytes see the laboratory data sheets.



MAP SOURCE: ESRI

SITE COORDINATES: 42°21'0"N, 71°2'38"W

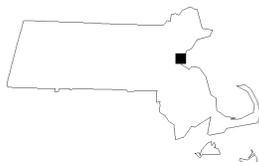
**HALEY  
ALDRICH**

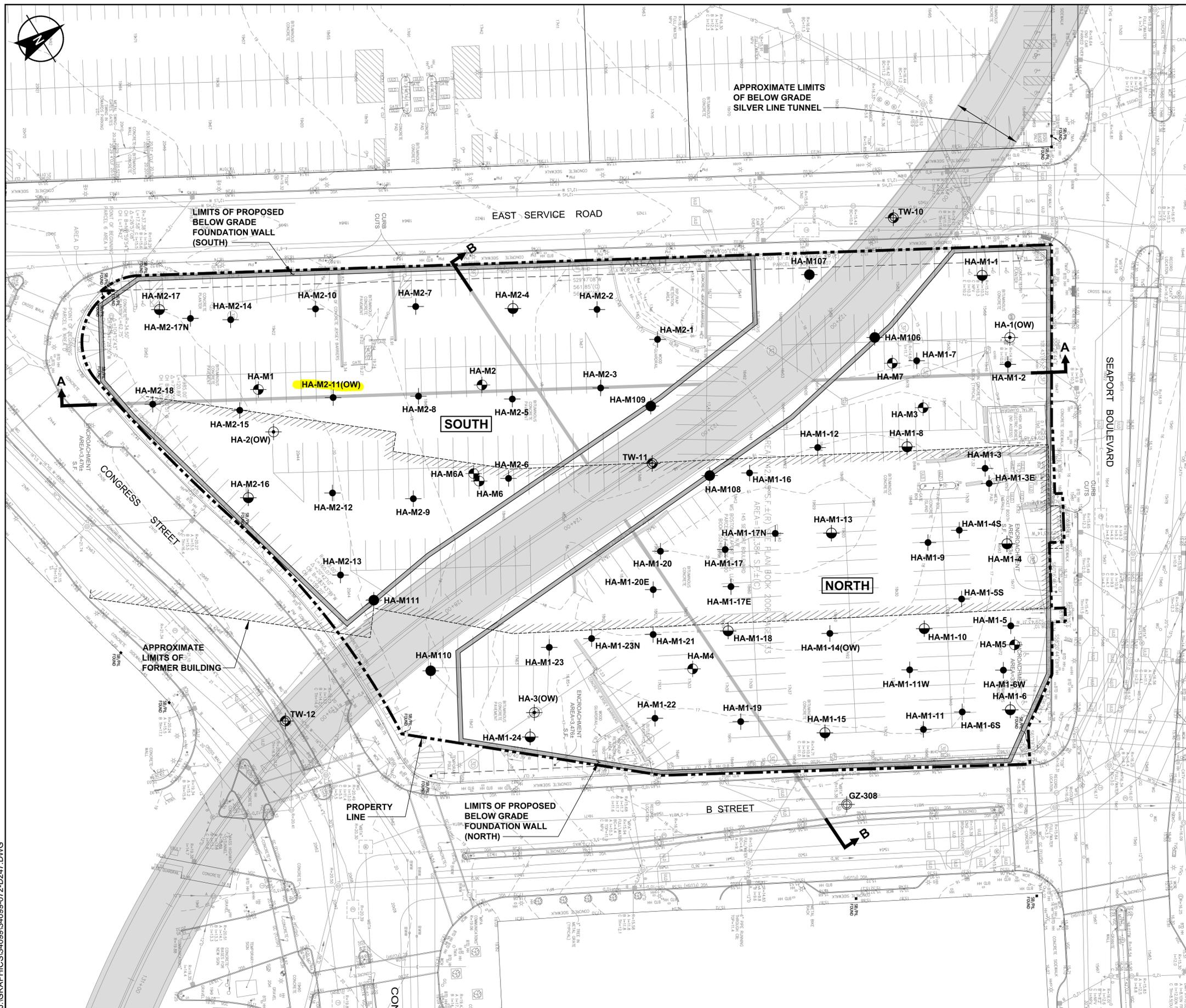
SEAPORT SQUARE BLOCK M  
145 SEAPORT BOULEVARD  
BOSTON, MASSACHUSETTS

**PROJECT LOCUS**

APPROXIMATE SCALE: 1 IN = 2000 FT  
JUNE 2017

**FIGURE 1**





**LEGEND**

- HA-M2-14 ● DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE ADVANCED IN FEBRUARY AND MARCH 2016 BY NORTHERN DRILL SERVICE, INC.
- HA-M1-1 ● DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED IN FEBRUARY AND MARCH 2016 BY NORTHERN DRILL SERVICE, INC.
- HA-M107 ● DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED IN JANUARY AND FEBRUARY 2016 BY GEOLOGIC EARTH EXPLORATIONS, INC.
- HA-M1 ● DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE OR TEST BORING DRILLED IN JANUARY 2015 BY NORTHERN DRILL SERVICE, INC.
- HA-1(OW) ⊕ DESIGNATION AND APPROXIMATE LOCATION OF GROUNDWATER OBSERVATION WELL INSTALLED ON 26 SEPTEMBER 2007 BY GEOLOGIC-EARTH EXPLORATIONS, INC. OF NORFOLK, MASSACHUSETTS
- TW-11 ⊕ DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED IN JULY AND AUGUST 1994 BY GUILD DRILLING CO.
- GZ-308 ⊕ DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED IN OCTOBER 1998 BY GZA DRILLING, INC.
- (OW) ⊕ INDICATES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE
- A ——— APPROXIMATE LOCATION OF SUBSURFACE PROFILES

**NOTES**

1. BASE PLAN TAKEN FROM AN ELECTRONIC FILE TITLE "10655\_ALTA1.dwg", PROVIDED BY NITSCH ENGINEERING, INC. ON 10 FEBRUARY 2016.
2. SLURRY WALLS TAKEN FROM AN ELECTRONIC FILE TITLED "2016 02 08 M1M2 Slurry Wall Package.dwg", PROVIDED BY MCNAMARA SALVIA ON 18 MARCH 2016.

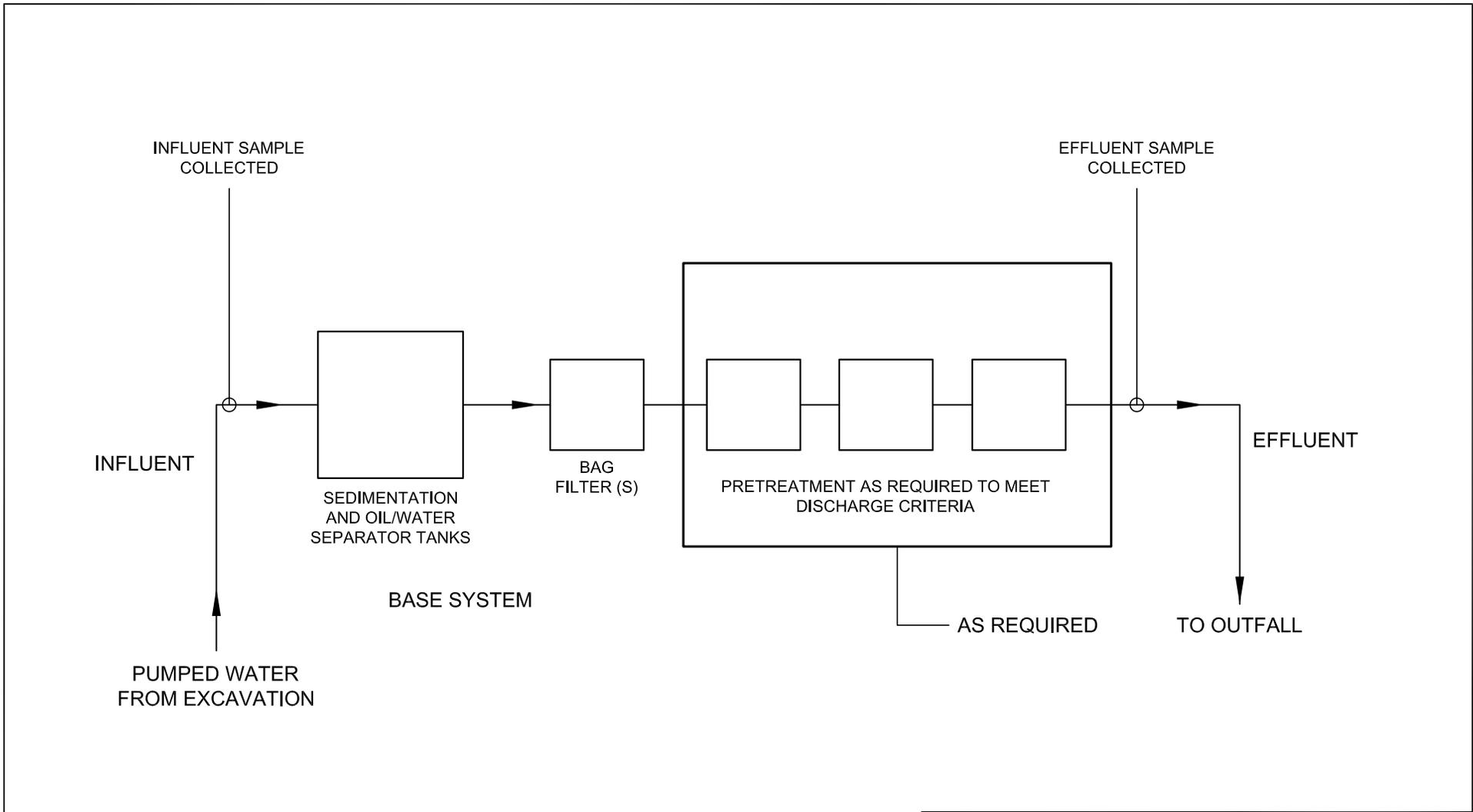
**HALEY ALDRICH**

SEAPORT SQUARE BLOCK M  
 BOSTON, MASSACHUSETTS

**SITE AND SUBSURFACE  
 EXPLORATION LOCATION PLAN**

SCALE: AS SHOWN  
 JUNE 2017

**FIGURE 2**



LEGEND:

➔ DIRECTION OF FLOW

NOTE:

1. DETAILS OF TREATMENT SYSTEM MAY VARY FROM SYSTEM INDICATED ABOVE. SPECIFIC MEANS AND METHODS OF TREATMENT TO BE SELECTED BY CONTRACTOR. WATER WILL BE TREATED TO MEET REQUIRED EFFLUENT STANDARDS.



SEAPORT SQUARE BLOCK M  
BOSTON, MASSACHUSETTS

PROPOSED  
TREATMENT SYSTEM  
SCHEMATIC

SCALE: NONE  
JUNE 2017

FIGURE 3

**APPENDIX A**

**Notice of Intent (NOI)**

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

**A. General site information:**

1. Name of site: <b>Seaport Square Block M</b>	Site address: <b>145 Seaport Boulevard</b>		
	Street:		
	City: <b>Boston</b>	State: <b>MA</b>	Zip: <b>02210</b>
2. Site owner  <b>Boston Seaport M1&amp;2 Land, LLC</b>  Owner is (check one): <input type="checkbox"/> Federal <input type="checkbox"/> State/Tribal <input checked="" type="checkbox"/> Private <input type="checkbox"/> Other; if so, specify:	Contact Person: <b>Alexander Shing</b>		
	Telephone: <b>626-788-2308</b>	Email: <b>alex@cottonwoodmgmt.com</b>	
	Mailing address: <b>101 Seaport Blvd, Ste. 602</b>		
	Street:		
	City: <b>Boston</b>	State: <b>MA</b>	Zip: <b>02210</b>
3. Site operator, if different than owner  <b>John Moriarty &amp; Associates</b>	Contact Person: <b>Christopher Moy</b>		
	Telephone: <b>716-799-4805</b>	Email: <b>cmoy@jm-a.com</b>	
	Mailing address: <b>3 Church St, Ste. 2</b>		
	Street:		
	City: <b>Winchester</b>	State: <b>MA</b>	Zip: <b>01890</b>
4. NPDES permit number assigned by EPA: <b>N/A</b>  NPDES permit is (check all that apply): <input checked="" type="checkbox"/> RGP <input type="checkbox"/> DGP <input type="checkbox"/> CGP <input type="checkbox"/> MSGP <input type="checkbox"/> Individual NPDES permit <input type="checkbox"/> Other; if so, specify:	5. Other regulatory program(s) that apply to the site (check all that apply):		
	<input checked="" type="checkbox"/> MA Chapter 21e; list RTN(s): <b>3-13624</b> <input type="checkbox"/> CERCLA <input type="checkbox"/> UIC Program <input type="checkbox"/> NH Groundwater Management Permit or Groundwater Release Detection Permit: <input type="checkbox"/> POTW Pretreatment <input type="checkbox"/> CWA Section 404		

**B. Receiving water information:**

1. Name of receiving water(s): Boston Inner Harbor/Boston Main Channel	Waterbody identification of receiving water(s): MA70-02	Classification of receiving water(s): SB(CSO)
Receiving water is (check any that apply): <input type="checkbox"/> Outstanding Resource Water <input type="checkbox"/> Ocean Sanctuary <input type="checkbox"/> territorial sea <input type="checkbox"/> Wild and Scenic River		
2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Are sensitive receptors present near the site? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.		
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.		N/A - Receiving water is an ocean
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 - Receiving water is an ocean
6. Has the operator received confirmation from the appropriate State for the 7Q10 and dilution factor indicated? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate date confirmation received:		
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): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

**C. Source water information:**

1. Source water(s) is (check any that apply):			
<input checked="" type="checkbox"/> Contaminated groundwater	<input type="checkbox"/> Contaminated surface water	<input type="checkbox"/> The receiving water	<input type="checkbox"/> Potable water; if so, indicate municipality or origin:
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): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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): <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> A surface water other than the receiving water; if so, indicate waterbody:	<input type="checkbox"/> Other; if so, specify:

pH, Temperature and Ammonia will be sampled for in subsequent monthly monitoring reports.

2. Source water contaminants: naphthalene, iron	
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): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

**D. Discharge information**

1.The discharge(s) is a(n) (check any that apply): <input type="checkbox"/> Existing discharge <input checked="" type="checkbox"/> New discharge <input type="checkbox"/> New source	
Outfall(s): SDO195	Outfall location(s): (Latitude, Longitude) 42.350601, -71.042765
Discharges enter the receiving water(s) via (check any that apply): <input checked="" type="checkbox"/> Direct discharge to the receiving water <input type="checkbox"/> Indirect discharge, if so, specify:  <input type="checkbox"/> A private storm sewer system <input checked="" type="checkbox"/> A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Has the operator has received permission from the owner to use such system for discharges? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, if so, explain, with an estimated timeframe for obtaining permission: <b>BWSC permit has been issued.</b> Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Provide the expected start and end dates of discharge(s) (month/year): May/2017-May/2019	
Indicate if the discharge is expected to occur over a duration of: <input type="checkbox"/> less than 12 months <input checked="" type="checkbox"/> 12 months or more <input type="checkbox"/> is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

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

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
<b>A. Inorganics</b>									
Ammonia		X	1	4500NH3-BH		2700	2700	Report mg/L	---
Chloride		X	1	300.0	50000	1370000	1370000	Report µg/l	---
Total Residual Chlorine	X		1	4500CL	20	ND	ND	0.2 mg/L	
Total Suspended Solids		X	1	2540D	500	28000	28000	30 mg/L	—
Antimony Total	X		1	6020A	4	ND	ND	206 µg/L	640
Arsenic Total		X	1	6020A	0.5	3.09	3.09	104 µg/L	36
Cadmium Total	X		1	6020A	0.2	ND	ND	10.2 µg/L	8.9
Chromium III Total		X	1	6020A	1	1.21	1.21	323 µg/L	100
Chromium VI Total	X		1	3500CR	10	ND	ND	323 µg/L	50
Copper Total	X		1	6020A	1	ND	ND	242 µg/L	3.7
Iron Total		X	1	6020A	50	18000	18000	5,000 µg/L	--
Lead Total		X	1	6020A	0.5	0.98	0.98	160 µg/L	8.5
Mercury Total	X		1	6020A	0.2	ND	ND	0.739 µg/L	1.11
Nickel Total	X		1	6020A	2	ND	ND	1,450 µg/L	8.3
Selenium Total	X		1	6020A	5	ND	ND	235.8 µg/L	71
Silver Total	X		1	6020A	0.4	ND	ND	35.1 µg/L	2.2
Zinc Total	X		1	6020A	10	ND	ND	420 µg/L	86
Cyanide Total	X		1	4500CN	10	ND	ND	178 mg/L	1
<b>B. Non-Halogenated VOCs</b>									
Total BTEX	X		1	8260C	NA	ND	ND	100 µg/L	---
Benzene	X		1	8260C	2.5	ND	ND	5.0 µg/L	---
1,4 Dioxane	X		1	8260C-SIM	15	ND	ND	200 µg/L	---
Acetone	X		1	8260C	25	ND	ND	7.97 mg/L	---
Phenol	X		1	420.1	30	ND	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
<b>C. Halogenated VOCs</b>									
Carbon Tetrachloride	X		1	8260C	2.5	ND	ND	4.4 µg/L	1.6
1,2 Dichlorobenzene	X		1	8260C	12	ND	ND	600 µg/L	---
1,3 Dichlorobenzene	X		1	8260C	12	ND	ND	320 µg/L	---
1,4 Dichlorobenzene	X		1	8260C	12	ND	ND	5.0 µg/L	---
Total dichlorobenzene	X		1	8260C	NA	ND	ND	763 µg/L in NH	---
1,1 Dichloroethane	X		1	8260C	2.5	ND	ND	70 µg/L	---
1,2 Dichloroethane	X		1	8260C	3.8	ND	ND	5.0 µg/L	---
1,1 Dichloroethylene	X		1	8260C	2.5	ND	ND	3.2 µg/L	---
Ethylene Dibromide	X		1	8260C	10	ND	ND	0.05 µg/L	---
Methylene Chloride	X		1	8260C	15	ND	ND	4.6 µg/L	---
1,1,1 Trichloroethane	X		1	8260C	2.5	ND	ND	200 µg/L	---
1,1,2 Trichloroethane	X		1	8260C	3.8	ND	ND	5.0 µg/L	---
Trichloroethylene	X		1	8260C	2.5	ND	ND	5.0 µg/L	---
Tetrachloroethylene	X		1	8260C	2.5	ND	ND	5.0 µg/L	---
cis-1,2 Dichloroethylene	X		1	8260C	2.5	ND	ND	70 µg/L	---
Vinyl Chloride	X		1	8260C	5	ND	ND	2.0 µg/L	---
<b>D. Non-Halogenated SVOCs</b>									
Total Phthalates	X		1	8270D	3	4.1	4.1	190 µg/L	--
Diethylhexyl phthalate	X		1	8270D	3	4.1	4.1	101 µg/L	2.2
Total Group I PAHs	X		1	8270D	NA			1.0 µg/L	---
Benzo(a)anthracene	X		1	8270D	0.2	ND	ND	As Total PAHs	0.0038
Benzo(a)pyrene	X		1	8270D	0.2	ND	ND		0.0038
Benzo(b)fluoranthene	X		1	8270D	0.2	ND	ND		0.0038
Benzo(k)fluoranthene	X		1	8270D	0.2	ND	ND		0.0038
Chrysene	X		1	8270D	0.2	ND	ND		0.0038
Dibenzo(a,h)anthracene	X		1	8270D	0.2	ND	ND		0.0038
Indeno(1,2,3-cd)pyrene	X		1	8270D	0.2	ND	ND		0.0038



**E. Treatment system information**

<p>1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)</p> <p><input type="checkbox"/> Adsorption/Absorption <input type="checkbox"/> Advanced Oxidation Processes <input type="checkbox"/> Air Stripping <input type="checkbox"/> Granulated Activated Carbon (“GAC”)/Liquid Phase Carbon Adsorption  <input type="checkbox"/> Ion Exchange <input type="checkbox"/> Precipitation/Coagulation/Flocculation <input checked="" type="checkbox"/> Separation/Filtration <input type="checkbox"/> Other; if so, specify:</p>	
<p>2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.  <b>Prior to discharge, collected water will be routed through a sedimentation tank and a bag filter and other necessary treatment components, to remove suspended solids and undissolved chemical constituents, as shown on Figure 3 of the NPDES permit application.</b></p> <p>Identify each major treatment component (check any that apply):  <input checked="" type="checkbox"/> Fractionation tanks <input type="checkbox"/> Equalization tank <input checked="" type="checkbox"/> Oil/water separator <input type="checkbox"/> Mechanical filter <input type="checkbox"/> Media filter  <input type="checkbox"/> Chemical feed tank <input type="checkbox"/> Air stripping unit <input checked="" type="checkbox"/> Bag filter <input type="checkbox"/> Other; if so, specify:</p> <p>Indicate if either of the following will occur (check any that apply):  <input type="checkbox"/> Chlorination <input type="checkbox"/> De-chlorination</p>	
<p>3. Provide the <b>design flow capacity</b> in gallons per minute (gpm) of the most limiting component.          Indicate the most limiting component:   <b>300 gpm</b>          Is use of a flow meter feasible? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, if so, provide justification:</p>	
<p>Provide the proposed maximum effluent flow in gpm.   <b>300 gpm</b></p>	
<p>Provide the average effluent flow in gpm.                   <b>200 gpm</b></p>	
<p>If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:</p>	
<p>4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	

### F. Chemical and additive information

<p>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)</p> <p><input type="checkbox"/> Algaecides/biocides <input type="checkbox"/> Antifoams <input type="checkbox"/> Coagulants <input type="checkbox"/> Corrosion/scale inhibitors <input type="checkbox"/> Disinfectants <input type="checkbox"/> Flocculants <input type="checkbox"/> Neutralizing agents <input type="checkbox"/> Oxidants <input type="checkbox"/> Oxygen <input type="checkbox"/> scavengers <input checked="" type="checkbox"/> pH conditioners <input type="checkbox"/> Bioremedial agents, including microbes <input type="checkbox"/> Chlorine or chemicals containing chlorine <input type="checkbox"/> Other; if so, specify:</p>
<p>2. Provide the following information for each chemical/additive, using attachments, if necessary: See attached Contractor's Submittal</p> <p>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)).</p>
<p>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): <input type="checkbox"/> Yes <input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

### G. Endangered Species Act eligibility determination

<p>1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:</p> <p><input type="checkbox"/> <b>FWS Criterion A:</b> 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".</p> <p><input checked="" type="checkbox"/> <b>FWS Criterion B:</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): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No; if no, is consultation underway? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> <b>FWS Criterion C:</b> 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) <input type="checkbox"/> the operator <input type="checkbox"/> EPA <input type="checkbox"/> Other; if so, specify:</p>
---

**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

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  N/A

### I. Supplemental information

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

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 implemented upon initiation of discharge.

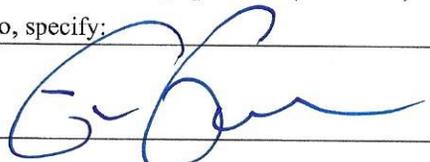
Notification provided to the appropriate State, including a copy of this NOI, if required. Check one: Yes  No

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: 6/16/17

Print Name and Title: John Moriarty & Associates

**APPENDIX B**

**Laboratory Data Reports**



## ANALYTICAL REPORT

Lab Number:	L1605984
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Heather Scranton
Phone:	(617) 886-7400
Project Name:	SEAPORT BLOCK M 1&2
Project Number:	34099-074
Report Date:	03/11/16

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Eight Walkup Drive, Westborough, MA 01581-1019  
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**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1605984-01	HA-M2-11	WATER	Not Specified	03/03/16 13:50	03/03/16
L1605984-02	TRIP BLANK	WATER	Not Specified	03/03/16 00:00	03/03/16

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. 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.

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**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**Case Narrative (continued)**

Dissolved Metals

L1605984-01: The sample has an elevated detection limit for Mercury due to the prep dilution required by the sample matrix.

The WG871376-4 MS recovery, performed on L1605984-01, is outside the acceptance criteria for mercury (72%). A post digestion spike was performed and was within acceptance criteria.

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:

 Cristin Walker

Title: Technical Director/Representative

Date: 03/11/16

# ORGANICS

# VOLATILES

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

**Lab ID:** L1605984-01  
**Client ID:** HA-M2-11  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 03/10/16 12:52  
**Analyst:** MM

**Date Collected:** 03/03/16 13:50  
**Date Received:** 03/03/16  
**Field Prep:** None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

## SAMPLE RESULTS

Lab ID: L1605984-01

Date Collected: 03/03/16 13:50

Client ID: HA-M2-11

Date Received: 03/03/16

Sample Location: Not Specified

Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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	12		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
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	170		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

Lab ID: L1605984-01  
 Client ID: HA-M2-11  
 Sample Location: Not Specified

Date Collected: 03/03/16 13:50  
 Date Received: 03/03/16  
 Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	111		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	113		70-130

**Project Name:** SEAPORT BLOCK M 1&2**Lab Number:** L1605984**Project Number:** 34099-074**Report Date:** 03/11/16**SAMPLE RESULTS**

Lab ID: L1605984-01

Date Collected: 03/03/16 13:50

Client ID: HA-M2-11

Date Received: 03/03/16

Sample Location: Not Specified

Field Prep: None

Matrix: Water

Analytical Method: 1,8260C-SIM(M)

Analytical Date: 03/10/16 12:09

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS-SIM - Westborough Lab						
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1,4-Dioxane	ND		ug/l	3.0	--	1
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**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

Lab ID: L1605984-01  
 Client ID: HA-M2-11  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 14,504.1  
 Analytical Date: 03/08/16 17:29  
 Analyst: NS

Date Collected: 03/03/16 13:50  
 Date Received: 03/03/16  
 Field Prep: None  
 Extraction Method: EPA 8011  
 Extraction Date: 03/08/16 13:36

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:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

**Lab ID:** L1605984-02  
**Client ID:** TRIP BLANK  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 03/10/16 11:59  
**Analyst:** MM

**Date Collected:** 03/03/16 00:00  
**Date Received:** 03/03/16  
**Field Prep:** None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
1,1,1,2-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
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

## SAMPLE RESULTS

Lab ID: L1605984-02

Date Collected: 03/03/16 00:00

Client ID: TRIP BLANK

Date Received: 03/03/16

Sample Location: Not Specified

Field Prep: None

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

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

Lab ID: L1605984-02  
 Client ID: TRIP BLANK  
 Sample Location: Not Specified

Date Collected: 03/03/16 00:00  
 Date Received: 03/03/16  
 Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Volatile Organics by GC/MS - Westborough Lab

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	111		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	114		70-130

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

Lab ID: L1605984-02  
 Client ID: TRIP BLANK  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 14,504.1  
 Analytical Date: 03/08/16 17:45  
 Analyst: NS

Date Collected: 03/03/16 00:00  
 Date Received: 03/03/16  
 Field Prep: None  
 Extraction Method: EPA 8011  
 Extraction Date: 03/08/16 13:36

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:** SEAPORT BLOCK M 1&2**Lab Number:** L1605984**Project Number:** 34099-074**Report Date:** 03/11/16**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 14,504.1  
Analytical Date: 03/08/16 16:42  
Analyst: NS

Extraction Method: EPA 8011  
Extraction Date: 03/08/16 13:36

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Microextractables by GC - Westborough Lab for sample(s): 01-02 Batch: WG871748-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C-SIM(M)  
Analytical Date: 03/10/16 04:29  
Analyst: MM

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG872538-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 03/10/16 07:36  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG872586-3					
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:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/10/16 07:36  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG872586-3					
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:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/10/16 07:36  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG872586-3					
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	106		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	110		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1605984

**Report Date:** 03/11/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG871748-2									
1,2-Dibromoethane	112		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	97		-		70-130	-		20	A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Lab Number:** L1605984

**Project Number:** 34099-074

**Report Date:** 03/11/16

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG872538-1 WG872538-2								
1,4-Dioxane	91		113		70-130	22		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1605984

Report Date: 03/11/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
Methylene chloride	95		94		70-130	1		20
1,1-Dichloroethane	95		95		70-130	0		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	106		106		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	108		108		63-130	0		20
1,1,2-Trichloroethane	101		100		70-130	1		20
2-Chloroethylvinyl ether	82		85		70-130	4		20
Tetrachloroethene	112		112		70-130	0		20
Chlorobenzene	102		101		75-130	1		25
Trichlorofluoromethane	98		98		62-150	0		20
1,2-Dichloroethane	98		98		70-130	0		20
1,1,1-Trichloroethane	100		101		67-130	1		20
Bromodichloromethane	102		103		67-130	1		20
trans-1,3-Dichloropropene	98		98		70-130	0		20
cis-1,3-Dichloropropene	102		104		70-130	2		20
1,1-Dichloropropene	94		95		70-130	1		20
Bromoform	101		103		54-136	2		20
1,1,2,2-Tetrachloroethane	89		91		67-130	2		20
Benzene	97		96		70-130	1		25
Toluene	93		93		70-130	0		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
Ethylbenzene	97		97		70-130	0		20
Chloromethane	93		92		64-130	1		20
Bromomethane	83		79		39-139	5		20
Vinyl chloride	101		101		55-140	0		20
Chloroethane	98		98		55-138	0		20
1,1-Dichloroethene	93		92		61-145	1		25
trans-1,2-Dichloroethene	92		92		70-130	0		20
Trichloroethene	99		99		70-130	0		25
1,2-Dichlorobenzene	103		104		70-130	1		20
1,3-Dichlorobenzene	104		106		70-130	2		20
1,4-Dichlorobenzene	103		103		70-130	0		20
Methyl tert butyl ether	91		92		63-130	1		20
p/m-Xylene	104		103		70-130	1		20
o-Xylene	103		103		70-130	0		20
cis-1,2-Dichloroethene	94		95		70-130	1		20
Dibromomethane	101		103		70-130	2		20
1,4-Dichlorobutane	85		87		70-130	2		20
Iodomethane	39	Q	46	Q	70-130	16		20
1,2,3-Trichloropropane	90		91		64-130	1		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	97		98		36-147	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
Acetone	88		86		58-148	2		20
Carbon disulfide	91		91		51-130	0		20
2-Butanone	102		99		63-138	3		20
Vinyl acetate	91		91		70-130	0		20
4-Methyl-2-pentanone	85		85		59-130	0		20
2-Hexanone	85		88		57-130	3		20
Ethyl methacrylate	85		86		70-130	1		20
Acrolein	82		84		70-130	2		20
Acrylonitrile	98		99		70-130	1		20
Bromochloromethane	116		114		70-130	2		20
Tetrahydrofuran	96		96		58-130	0		20
2,2-Dichloropropane	100		97		63-133	3		20
1,2-Dibromoethane	99		101		70-130	2		20
1,3-Dichloropropane	99		98		70-130	1		20
1,1,1,2-Tetrachloroethane	108		108		64-130	0		20
Bromobenzene	101		101		70-130	0		20
n-Butylbenzene	116		115		53-136	1		20
sec-Butylbenzene	109		109		70-130	0		20
tert-Butylbenzene	102		104		70-130	2		20
o-Chlorotoluene	91		91		70-130	0		20
p-Chlorotoluene	90		90		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
1,2-Dibromo-3-chloropropane	96		96		41-144	0		20
Hexachlorobutadiene	152	Q	152	Q	63-130	0		20
Isopropylbenzene	90		90		70-130	0		20
p-Isopropyltoluene	112		113		70-130	1		20
Naphthalene	88		90		70-130	2		20
n-Propylbenzene	93		93		69-130	0		20
1,2,3-Trichlorobenzene	106		108		70-130	2		20
1,2,4-Trichlorobenzene	106		108		70-130	2		20
1,3,5-Trimethylbenzene	99		100		64-130	1		20
1,3,5-Trichlorobenzene	113		113		70-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
trans-1,4-Dichloro-2-butene	75		78		70-130	4		20
Halothane	95		93		70-130	2		20
Ethyl ether	92		94		59-134	2		20
Methyl Acetate	92		95		70-130	3		20
Ethyl Acetate	86		88		70-130	2		20
Isopropyl Ether	87		89		70-130	2		20
Cyclohexane	89		90		70-130	1		20
Tert-Butyl Alcohol	108		114		70-130	5		20
Ethyl-Tert-Butyl-Ether	88		89		70-130	1		20
Tertiary-Amyl Methyl Ether	91		92		66-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1605984

Report Date: 03/11/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
1,4-Dioxane	80		91		56-162	13		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	90		91		70-130	1		20
Methyl cyclohexane	91		92		70-130	1		20
p-Diethylbenzene	107		108		70-130	1		20
4-Ethyltoluene	94		95		70-130	1		20
1,2,4,5-Tetramethylbenzene	88		89		70-130	1		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	101		102		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	83		84		70-130
Dibromofluoromethane	106		106		70-130

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG871748-3 QC Sample: L1605984-01 Client ID: HA-M2-11													
1,2-Dibromoethane	ND	0.258	0.293	114		-	-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.258	0.250	97		-	-		70-130	-		20	A

# SEMIVOLATILES

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

Lab ID: L1605984-01  
 Client ID: HA-M2-11  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 03/11/16 01:09  
 Analyst: KR

Date Collected: 03/03/16 13:50  
 Date Received: 03/03/16  
 Field Prep: None  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/07/16 16:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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
Bis(2-ethylhexyl)phthalate	ND		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
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
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	9.9		ug/l	2.0	--	1

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

## SAMPLE RESULTS

Lab ID: L1605984-01

Date Collected: 03/03/16 13:50

Client ID: HA-M2-11

Date Received: 03/03/16

Sample Location: Not Specified

Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
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	6.0		ug/l	2.0	--	1
Pyridine	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	88		41-149

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

Lab ID: L1605984-01 D  
 Client ID: HA-M2-11  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/08/16 14:45  
 Analyst: KV

Date Collected: 03/03/16 13:50  
 Date Received: 03/03/16  
 Field Prep: None  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/07/16 16:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	23		ug/l	0.40	--	4
2-Chloronaphthalene	ND		ug/l	0.80	--	4
Fluoranthene	2.6		ug/l	0.80	--	4
Hexachlorobutadiene	ND		ug/l	2.0	--	4
Naphthalene	48		ug/l	0.80	--	4
Benzo(a)anthracene	ND		ug/l	0.80	--	4
Benzo(a)pyrene	ND		ug/l	0.80	--	4
Benzo(b)fluoranthene	ND		ug/l	0.80	--	4
Benzo(k)fluoranthene	ND		ug/l	0.80	--	4
Chrysene	ND		ug/l	0.80	--	4
Acenaphthylene	1.1		ug/l	0.80	--	4
Anthracene	2.6		ug/l	0.80	--	4
Benzo(ghi)perylene	ND		ug/l	0.80	--	4
Fluorene	14		ug/l	0.80	--	4
Phenanthrene	11		ug/l	0.80	--	4
Dibenzo(a,h)anthracene	ND		ug/l	0.80	--	4
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.80	--	4
Pyrene	1.4		ug/l	0.80	--	4
1-Methylnaphthalene	9.8		ug/l	0.80	--	4
2-Methylnaphthalene	10		ug/l	0.80	--	4
Pentachlorophenol	ND		ug/l	3.2	--	4
Hexachlorobenzene	ND		ug/l	3.2	--	4
Hexachloroethane	ND		ug/l	3.2	--	4

**Project Name:** SEAPORT BLOCK M 1&2**Lab Number:** L1605984**Project Number:** 34099-074**Report Date:** 03/11/16**SAMPLE RESULTS**

Lab ID: L1605984-01 D

Date Collected: 03/03/16 13:50

Client ID: HA-M2-11

Date Received: 03/03/16

Sample Location: Not Specified

Field Prep: None

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	100		15-120
2,4,6-Tribromophenol	102		10-120
4-Terphenyl-d14	116		41-149

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 03/08/16 09:53  
**Analyst:** KV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/07/16 16:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG871406-1					
Acenaphthene	ND		ug/l	0.10	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/08/16 09:53  
 Analyst: KV

Extraction Method: EPA 3510C  
 Extraction Date: 03/07/16 16:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG871406-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	103		10-120
4-Terphenyl-d14	106		41-149

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
 Analytical Date: 03/08/16 09:59  
 Analyst: KR

Extraction Method: EPA 3510C  
 Extraction Date: 03/07/16 16:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG871411-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	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	--
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	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
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	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/08/16 09:59  
**Analyst:** KR

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/07/16 16:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG871411-1					
Dibenzofuran	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	--
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	--
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	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	26		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	94		41-149



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

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: WG871406-2 WG871406-3								
Acenaphthene	95		109		37-111	14		40
2-Chloronaphthalene	88		102		40-140	15		40
Fluoranthene	109		125		40-140	14		40
Hexachlorobutadiene	78		87		40-140	11		40
Naphthalene	83		97		40-140	16		40
Benzo(a)anthracene	103		120		40-140	15		40
Benzo(a)pyrene	111		129		40-140	15		40
Benzo(b)fluoranthene	107		123		40-140	14		40
Benzo(k)fluoranthene	106		119		40-140	12		40
Chrysene	106		122		40-140	14		40
Acenaphthylene	94		106		40-140	12		40
Anthracene	102		118		40-140	15		40
Benzo(ghi)perylene	102		118		40-140	15		40
Fluorene	107		124		40-140	15		40
Phenanthrene	99		114		40-140	14		40
Dibenzo(a,h)anthracene	108		124		40-140	14		40
Indeno(1,2,3-cd)Pyrene	102		118		40-140	15		40
Pyrene	100		115		26-127	14		40
1-Methylnaphthalene	90		103		40-140	13		40
2-Methylnaphthalene	88		101		40-140	14		40
Pentachlorophenol	67		118	Q	9-103	55	Q	40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

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: WG871406-2 WG871406-3								
Hexachlorobenzene	99		115		40-140	15		40
Hexachloroethane	77		86		40-140	11		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	50		52		21-120
Phenol-d6	37		38		10-120
Nitrobenzene-d5	88		91		23-120
2-Fluorobiphenyl	92		93		15-120
2,4,6-Tribromophenol	102		114		10-120
4-Terphenyl-d14	106		106		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1605984

Report Date: 03/11/16

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: WG871411-2 WG871411-3								
Benzidine	31		16		10-75	64	Q	30
1,2,4-Trichlorobenzene	79		80		39-98	1		30
Bis(2-chloroethyl)ether	86		82		40-140	5		30
1,2-Dichlorobenzene	74		70		40-140	6		30
1,3-Dichlorobenzene	71		67		40-140	6		30
1,4-Dichlorobenzene	70		69		36-97	1		30
3,3'-Dichlorobenzidine	59		60		40-140	2		30
2,4-Dinitrotoluene	110	Q	112	Q	24-96	2		30
2,6-Dinitrotoluene	109		112		40-140	3		30
Azobenzene	100		104		40-140	4		30
4-Chlorophenyl phenyl ether	96		102		40-140	6		30
4-Bromophenyl phenyl ether	106		109		40-140	3		30
Bis(2-chloroisopropyl)ether	76		75		40-140	1		30
Bis(2-chloroethoxy)methane	94		91		40-140	3		30
Hexachlorocyclopentadiene	65		65		40-140	0		30
Isophorone	99		99		40-140	0		30
Nitrobenzene	87		87		40-140	0		30
NDPA/DPA	102		104		40-140	2		30
Bis(2-ethylhexyl)phthalate	104		107		40-140	3		30
Butyl benzyl phthalate	107		109		40-140	2		30
Di-n-butylphthalate	108		112		40-140	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

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: WG871411-2 WG871411-3								
Di-n-octylphthalate	110		113		40-140	3		30
Diethyl phthalate	105		108		40-140	3		30
Dimethyl phthalate	101		103		40-140	2		30
Aniline	53		37	Q	40-140	36	Q	30
4-Chloroaniline	91		73		40-140	22		30
2-Nitroaniline	106		109		52-143	3		30
3-Nitroaniline	82		84		25-145	2		30
4-Nitroaniline	99		101		51-143	2		30
Dibenzofuran	96		99		40-140	3		30
n-Nitrosodimethylamine	55		53		22-74	4		30
2,4,6-Trichlorophenol	100		100		30-130	0		30
p-Chloro-m-cresol	105	Q	109	Q	23-97	4		30
2-Chlorophenol	87		84		27-123	4		30
2,4-Dichlorophenol	101		101		30-130	0		30
2,4-Dimethylphenol	93		82		30-130	13		30
2-Nitrophenol	97		94		30-130	3		30
4-Nitrophenol	57		61		10-80	7		30
2,4-Dinitrophenol	78		85		20-130	9		30
4,6-Dinitro-o-cresol	93		100		20-164	7		30
Phenol	38		38		12-110	0		30
2-Methylphenol	86		83		30-130	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

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: WG871411-2 WG871411-3								
3-Methylphenol/4-Methylphenol	90		85		30-130	6		30
2,4,5-Trichlorophenol	103		102		30-130	1		30
Benzoic Acid	24		39		10-164	52	Q	30
Benzyl Alcohol	79		78		26-116	1		30
Carbazole	105		108		55-144	3		30
Pyridine	36		18		10-66	67	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	53		49		21-120
Phenol-d6	37		37		10-120
Nitrobenzene-d5	83		82		23-120
2-Fluorobiphenyl	84		85		15-120
2,4,6-Tribromophenol	107		107		10-120
4-Terphenyl-d14	95		99		41-149

# PCBS

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

Lab ID: L1605984-01  
 Client ID: HA-M2-11  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,608  
 Analytical Date: 03/07/16 12:39  
 Analyst: JW

Date Collected: 03/03/16 13:50  
 Date Received: 03/03/16  
 Field Prep: None  
 Extraction Method: EPA 608  
 Extraction Date: 03/06/16 05:05  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 03/07/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 03/07/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
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	63		30-150	A
Decachlorobiphenyl	77		30-150	A

**Project Name:** SEAPORT BLOCK M 1&2**Lab Number:** L1605984**Project Number:** 34099-074**Report Date:** 03/11/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 5,608  
 Analytical Date: 03/07/16 12:51  
 Analyst: JW

Extraction Method: EPA 608  
 Extraction Date: 03/06/16 05:05  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 03/07/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 03/07/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG871112-1						
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	70		30-150	A
Decachlorobiphenyl	82		30-150	A

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871112-3 QC Sample: L1605657-01 Client ID: MS Sample													
Aroclor 1016	ND	1	0.925	92		-	-		40-140	-		50	A
Aroclor 1260	ND	1	0.716	72		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>	<i>Column</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>		
2,4,5,6-Tetrachloro-m-xylene	67				30-150	A
Decachlorobiphenyl	75				30-150	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

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: WG871112-2									
Aroclor 1016	78		-		40-140	-		50	A
Aroclor 1260	73		-		40-140	-		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58				30-150	A
Decachlorobiphenyl	75				30-150	A

**Lab Duplicate Analysis**  
Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871112-4 QC Sample: L1605984-01 Client ID: HA-M2-11						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		64		30-150	A
Decachlorobiphenyl	77		80		30-150	A



## METALS

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

**Lab ID:** L1605984-01  
**Client ID:** HA-M2-11  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/03/16 13:50  
**Date Received:** 03/03/16  
**Field Prep:** None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0022		mg/l	0.0005	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Chromium, Total	0.0252		mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Copper, Total	0.0013		mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Iron, Total	18		mg/l	0.05	--	1	03/08/16 10:45	03/09/16 13:17	EPA 3005A	19,200.7	PS
Lead, Total	0.0021		mg/l	0.0005	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	--	1	03/04/16 14:45	03/04/16 22:49	EPA 245.1	3,245.1	EA
Nickel, Total	0.0175		mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.005	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0004	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0100	--	1	03/08/16 10:45	03/08/16 17:18	EPA 3005A	1,6020A	TT
<b>Dissolved Metals - Westborough Lab</b>											
Antimony, Dissolved	ND		mg/l	0.0020	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Arsenic, Dissolved	0.0007		mg/l	0.0005	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Cadmium, Dissolved	ND		mg/l	0.0002	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Chromium, Dissolved	0.0018		mg/l	0.0010	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Copper, Dissolved	ND		mg/l	0.0010	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Iron, Dissolved	1.5		mg/l	0.05	--	1	03/04/16 12:35	03/09/16 03:02	EPA 3005A	19,200.7	PS
Lead, Dissolved	0.0008		mg/l	0.0005	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Mercury, Dissolved	ND		mg/l	0.00100	--	1	03/07/16 14:11	03/07/16 21:35	EPA 245.1	3,245.1	EA
Nickel, Dissolved	0.0181		mg/l	0.0020	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Selenium, Dissolved	ND		mg/l	0.005	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Silver, Dissolved	ND		mg/l	0.0004	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL
Zinc, Dissolved	ND		mg/l	0.0100	--	1	03/04/16 12:35	03/05/16 17:25	EPA 3005A	1,6020A	KL



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

### Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG870712-1									
Antimony, Dissolved	ND	mg/l	0.0020	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Arsenic, Dissolved	ND	mg/l	0.0005	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Cadmium, Dissolved	ND	mg/l	0.0002	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Chromium, Dissolved	ND	mg/l	0.0010	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Copper, Dissolved	ND	mg/l	0.0010	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Lead, Dissolved	ND	mg/l	0.0005	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Nickel, Dissolved	ND	mg/l	0.0020	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Selenium, Dissolved	ND	mg/l	0.005	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Silver, Dissolved	ND	mg/l	0.0004	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL
Zinc, Dissolved	ND	mg/l	0.0100	--	1	03/04/16 12:35	03/05/16 17:10	1,6020A	KL

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG870713-1									
Iron, Dissolved	ND	mg/l	0.05	--	1	03/04/16 12:35	03/09/16 02:36	19,200.7	PS

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG870780-1									
Mercury, Total	ND	mg/l	0.00020	--	1	03/04/16 14:45	03/04/16 22:45	3,245.1	EA

#### Prep Information

Digestion Method: EPA 245.1



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG871376-1									
Mercury, Dissolved	ND	mg/l	0.00020	--	1	03/07/16 14:11	03/07/16 21:31	3,245.1	EA

### Prep Information

Digestion Method: EPA 245.1

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG871643-1									
Antimony, Total	ND	mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Arsenic, Total	ND	mg/l	0.0005	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Cadmium, Total	ND	mg/l	0.0002	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Chromium, Total	ND	mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Copper, Total	ND	mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Lead, Total	ND	mg/l	0.00050	--	1	03/08/16 10:45	03/09/16 13:53	1,6020A	KL
Nickel, Total	ND	mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Selenium, Total	ND	mg/l	0.005	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Silver, Total	ND	mg/l	0.0004	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Zinc, Total	ND	mg/l	0.0100	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG871647-1									
Iron, Total	ND	mg/l	0.05	--	1	03/08/16 10:45	03/09/16 12:52	19,200.7	PS

### Prep Information

Digestion Method: EPA 3005A



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1605984

**Report Date:** 03/11/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG870712-2								
Antimony, Dissolved	96		-		80-120	-		
Arsenic, Dissolved	105		-		80-120	-		
Cadmium, Dissolved	117		-		80-120	-		
Chromium, Dissolved	113		-		80-120	-		
Copper, Dissolved	120		-		80-120	-		
Lead, Dissolved	104		-		80-120	-		
Nickel, Dissolved	101		-		80-120	-		
Selenium, Dissolved	107		-		80-120	-		
Silver, Dissolved	117		-		80-120	-		
Zinc, Dissolved	104		-		80-120	-		
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG870713-2								
Iron, Dissolved	93		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG870780-2								
Mercury, Total	112		-		85-115	-		
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG871376-2								
Mercury, Dissolved	108		-		85-115	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1605984

**Report Date:** 03/11/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG871643-2					
Antimony, Total	85	-	80-120	-	
Arsenic, Total	90	-	80-120	-	
Cadmium, Total	93	-	80-120	-	
Chromium, Total	92	-	80-120	-	
Copper, Total	98	-	80-120	-	
Lead, Total	92	-	80-120	-	
Nickel, Total	95	-	80-120	-	
Selenium, Total	87	-	80-120	-	
Silver, Total	95	-	80-120	-	
Zinc, Total	89	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG871647-2					
Iron, Total	86	-	85-115	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870712-4 QC Sample: L1600003-18 Client ID: MS Sample												
Antimony, Dissolved	ND	0.5	0.4978	100		-	-		75-125	-		20
Arsenic, Dissolved	ND	0.12	0.1452	121		-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.0540	106		-	-		75-125	-		20
Chromium, Dissolved	ND	0.2	0.1970	98		-	-		75-125	-		20
Copper, Dissolved	ND	0.25	0.2616	105		-	-		75-125	-		20
Lead, Dissolved	ND	0.51	0.5439	107		-	-		75-125	-		20
Nickel, Dissolved	ND	0.5	0.5479	110		-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.159	132	Q	-	-		75-125	-		20
Silver, Dissolved	ND	0.05	0.0524	105		-	-		75-125	-		20
Zinc, Dissolved	ND	0.5	0.5071	101		-	-		75-125	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870713-4 QC Sample: L1600003-18 Client ID: MS Sample												
Iron, Dissolved	0.21	1	1.1	89		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870780-4 QC Sample: L1605984-01 Client ID: HA-M2-11												
Mercury, Total	ND	0.005	0.00495	99		-	-		70-130	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871376-4 QC Sample: L1605984-01 Client ID: HA-M2-11												
Mercury, Dissolved	ND	0.025	0.01810	72	Q	-	-		75-125	-		20

### Matrix Spike Analysis Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG871643-3    WG871643-4    QC Sample: L1600003-28    Client ID: MS Sample									
Antimony, Total	0.0006	0.5	0.4394	88	0.4520	90	75-125	3	20
Arsenic, Total	0.0051	0.12	0.1141	91	0.1146	91	75-125	0	20
Cadmium, Total	ND	0.051	0.0457	90	0.0483	95	75-125	6	20
Chromium, Total	ND	0.2	0.1828	91	0.1835	92	75-125	0	20
Copper, Total	ND	0.25	0.2824	113	0.2750	110	75-125	3	20
Lead, Total	ND	0.51	0.4562	89	0.4992	98	75-125	9	20
Nickel, Total	0.0049	0.5	0.4844	96	0.5002	99	75-125	3	20
Selenium, Total	ND	0.12	0.104	87	0.112	93	75-125	7	20
Silver, Total	ND	0.05	0.0475	95	0.0505	101	75-125	6	20
Zinc, Total	ND	0.5	0.4561	91	0.4585	92	75-125	1	20
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG871647-3    WG871647-4    QC Sample: L1600003-21    Client ID: MS Sample									
Iron, Total	0.63	1	1.5	87	1.5	87	75-125	0	20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1605984

Report Date: 03/11/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
<b>Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870712-3 QC Sample: L1600003-18 Client ID: DUP Sample</b>						
Antimony, Dissolved	ND	ND	mg/l	NC		20
Arsenic, Dissolved	ND	0.0103	mg/l	NC		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Chromium, Dissolved	ND	ND	mg/l	NC		20
Copper, Dissolved	ND	ND	mg/l	NC		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Nickel, Dissolved	ND	ND	mg/l	NC		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Zinc, Dissolved	ND	ND	mg/l	NC		20
<b>Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870713-3 QC Sample: L1600003-18 Client ID: DUP Sample</b>						
Iron, Dissolved	0.21	0.15	mg/l	33	Q	20
<b>Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870780-3 QC Sample: L1605984-01 Client ID: HA-M2-11</b>						
Mercury, Total	ND	ND	mg/l	NC		20
<b>Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871376-3 QC Sample: L1605984-01 Client ID: HA-M2-11</b>						
Mercury, Dissolved	ND	ND	mg/l	NC		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**SAMPLE RESULTS**

**Lab ID:** L1605984-01  
**Client ID:** HA-M2-11  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/03/16 13:50  
**Date Received:** 03/03/16  
**Field Prep:** None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	35.		mg/l	15	NA	3	-	03/06/16 15:50	30,2540D	SG
Cyanide, Total	ND		mg/l	0.005	--	1	03/04/16 10:08	03/04/16 13:25	30,4500CN-CE	JO
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/07/16 12:33	03/07/16 15:09	30,4500CN-G	JO
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	03/09/16 09:23	03/09/16 13:00	64,9014(M)	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/03/16 23:35	30,4500CL-D	AS
TPH, SGT-HEM	ND		mg/l	4.00	--	1	03/03/16 20:20	03/04/16 16:30	74,1664A	KE
Phenolics, Total	ND		mg/l	0.030	--	1	03/04/16 14:00	03/04/16 17:19	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/03/16 23:20	03/03/16 23:31	119,3500CR-B	LH
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	1260		mg/l	25.0	--	50	-	03/04/16 19:17	44,300.0	AU



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

**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: WG870518-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	03/03/16 20:20	03/04/16 16:30	74,1664A	KE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG870542-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/03/16 23:35	30,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG870543-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/03/16 23:20	03/03/16 23:31	119,3500CR-B	LH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG870633-1										
Cyanide, Total	ND		mg/l	0.005	--	1	03/04/16 10:08	03/04/16 13:09	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG870711-1										
Phenolics, Total	ND		mg/l	0.030	--	1	03/04/16 14:00	03/04/16 17:13	4,420.1	MP
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG870871-1										
Chloride	ND		mg/l	0.500	--	1	-	03/04/16 18:17	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG871137-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/06/16 15:50	30,2540D	SG
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG871318-1										
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/07/16 12:33	03/07/16 15:09	30,4500CN-G	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG872031-1										
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	03/09/16 09:23	03/09/16 12:57	64,9014(M)	JO

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1605984

**Report Date:** 03/11/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG870518-2								
TPH	75		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG870542-2								
Chlorine, Total Residual	105		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG870543-2								
Chromium, Hexavalent	97		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG870633-2								
Cyanide, Total	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG870711-2								
Phenolics, Total	98		-		70-130	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG870871-2								
Chloride	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG871318-2								
Cyanide, Amenable	100		-		85-115	-		

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1605984

**Report Date:** 03/11/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG872031-2					
Cyanide, Physiologically Available	94	-	80-120	-	
General Chemistry - Westborough Lab NEGATIVE LCS Associated sample(s): 01 Batch: WG872031-5					
Cyanide, Physiologically Available	2	-	0-10	-	

### Matrix Spike Analysis Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870518-4 QC Sample: L1600003-14 Client ID: MS Sample												
TPH	ND	22.5	18.0	80	-	-	-	-	64-132	-	-	34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870543-4 QC Sample: L1605984-01 Client ID: HA-M2-11												
Chromium, Hexavalent	ND	0.1	0.100	100	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870633-4 WG870633-5 QC Sample: L1600003-17 Client ID: MS Sample												
Cyanide, Total	ND	2	2.01	100	1.97	99	-	-	90-110	2	-	30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870711-4 QC Sample: L1605984-01 Client ID: HA-M2-11												
Phenolics, Total	ND	0.4	0.40	100	-	-	-	-	70-130	-	-	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870871-3 QC Sample: L1606164-03 Client ID: MS Sample												
Chloride	ND	4	4.44	111	-	-	-	-	40-151	-	-	18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872031-4 QC Sample: L1606261-01 Client ID: MS Sample												
Cyanide, Physiologically Available	ND	0.2	0.176	88	-	-	-	-	75-125	-	-	20

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1605984

Report Date: 03/11/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870518-3 QC Sample: L1600003-13 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870542-3 QC Sample: L1605915-01 Client ID: DUP Sample						
Chlorine, Total Residual	1.5	1.6	mg/l	6		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870543-3 QC Sample: L1605984-01 Client ID: HA-M2-11						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870633-3 QC Sample: L1600003-17 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870711-3 QC Sample: L1605984-01 Client ID: HA-M2-11						
Phenolics, Total	ND	ND	mg/l	NC		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870871-4 QC Sample: L1606164-03 Client ID: DUP Sample						
Chloride	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871137-2 QC Sample: L1605984-01 Client ID: HA-M2-11						
Solids, Total Suspended	35	36	mg/l	3		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871318-3 QC Sample: L1605984-01 Client ID: HA-M2-11						
Cyanide, Amenable	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872031-3 QC Sample: L1606267-01 Client ID: DUP Sample						
Cyanide, Physiologically Available	ND	ND	mg/l	NC		20

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1605984

Project Number: 34099-074

Report Date: 03/11/16

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1605984-01A	Vial HCl preserved	A	N/A	5.2	Y	Absent	8260-SIM(14),8260(14)
L1605984-01B	Vial HCl preserved	A	N/A	5.2	Y	Absent	8260-SIM(14),8260(14)
L1605984-01C	Vial HCl preserved	A	N/A	5.2	Y	Absent	8260-SIM(14),8260(14)
L1605984-01D	Vial Na2S2O3 preserved	A	N/A	5.2	Y	Absent	504(14)
L1605984-01E	Vial Na2S2O3 preserved	A	N/A	5.2	Y	Absent	504(14)
L1605984-01F	Plastic 250ml unpreserved	A	7	5.2	Y	Absent	-
L1605984-01G	Plastic 250ml NaOH preserved	A	>12	5.2	Y	Absent	TCN-4500(14),ACN-4500(14),PACN(14)
L1605984-01G1	Plastic 250ml NaOH preserved	A	>12	5.2	Y	Absent	TCN-4500(14),ACN-4500(14),PACN(14)
L1605984-01H	Plastic 950ml unpreserved	A	7	5.2	Y	Absent	TSS-2540(7)
L1605984-01I	Plastic 950ml unpreserved	A	7	5.2	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1605984-01J	Amber 950ml H2SO4 preserved	A	<2	5.2	Y	Absent	TPHENOL-420(28)
L1605984-01K	Amber 1000ml HCl preserved	A	N/A	5.2	Y	Absent	TPH-1664(28)
L1605984-01L	Amber 1000ml HCl preserved	A	N/A	5.2	Y	Absent	TPH-1664(28)
L1605984-01M	Amber 1000ml Na2S2O3	A	7	5.2	Y	Absent	PCB-608(7)
L1605984-01N	Amber 1000ml Na2S2O3	A	7	5.2	Y	Absent	PCB-608(7)
L1605984-01O	Amber 1000ml unpreserved	A	7	5.2	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1605984-01P	Amber 1000ml unpreserved	A	7	5.2	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1605984-01Q	Plastic 250ml HNO3 preserved	A	<2	5.2	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1605984-01X	Plastic 120ml HNO3 preserved spl	A	<2	5.2	Y	Absent	CU-6020S(180),FE-RI(180),SE-6020S(180),ZN-6020S(180),CR-6020S(180),NI-6020S(180),PB-6020S(180),AG-6020S(180),AS-6020S(180),HG-R(28),SB-6020S(180),CD-6020S(180)
L1605984-02A	Vial HCl preserved	A	N/A	5.2	Y	Absent	8260(14)
L1605984-02B	Vial Na2S2O3 preserved	A	N/A	5.2	Y	Absent	504(14)

\*Values in parentheses indicate holding time in days



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

## 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.
LCS D	- 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.
MS D	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
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

**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.

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. 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).

**Report Format:** Data Usability Report



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

#### **Data Qualifiers**

- 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.

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1605984  
**Report Date:** 03/11/16

## 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.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 64 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-III A (Revision 5). August 2004.
- 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.
- 119 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 21st Edition.

## 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 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene  
**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene  
**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.  
**EPA 1010A:** NPW: Ignitability  
**EPA 6010C:** NPW: Strontium; SCM: Strontium  
**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP  
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.  
**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.  
**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation  
**EPA 9038:** NPW: Sulfate  
**EPA 9050A:** NPW: Specific Conductance  
**EPA 9056:** NPW: Chloride, Nitrate, Sulfate  
**EPA 9065:** NPW: Phenols  
**EPA 9251:** NPW: Chloride  
**SM3500:** NPW: Ferrous Iron  
**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.  
**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam  
**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane  
**SM 2540D:** TSS  
**SM2540G:** SCM: Percent Solids  
**EPA 1631E:** SCM: Mercury  
**EPA 7474:** SCM: Mercury  
**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.  
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.  
**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.  
**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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.  
**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;  
**EPA 300.0:** 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.  
**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;  
**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;  
**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**  
**EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, 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, SM9222D-MF.**

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

**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1400

# CHAIN OF CUSTODY RECORD L1605984

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 34099-074  
PROJECT NAME Seaport Block M1+M2  
H&A CONTACT \_\_\_\_\_

LABORATORY Alpha  
ADDRESS Westborough, MA  
CONTACT Gina Hall

DELIVERY DATE 3/4/2016  
TURNAROUND TIME Standard  
PROJECT MANAGER Heather Scramton

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)			
					1 VOA	2 PCBs PAHs PCBs	3 PCBs	4 PCBs	5 PCBs	6 PCBs	7 PCBs	8 PCBs	9 PCBs	10 PCBs	11 PCBs	12 PCBs	13 PCBs					
HA-M2-11	<del>3/4/16</del> 3/3/16	1350	—	Ag	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	Laboratory to use applicable DEP CAM methods, unless otherwise directed. ① VOL 8260/SIM ② 8270/TCL SIM ③ TOTRGP Metals ④ PCBs 608 ⑤ Dissolved RGP Metals P.F. ⑥ 504 ⑦ TPH 1664 ⑧ TCN ⑨ ACN, PACN ⑩ TSS 2540 ⑪ HexC, TRC 4500C ⑫ TPHE NOL (13/14) Trip blanks 504/8260 , Chloride

no volume remains to analyze triplank for 8260-SIM

sample submitted 2/2/16

Sampled and Relinquished by: Sign Matthew Dolson, Print Matthew Dolson, Firm H&A, Date 3/4/16 Time 1430

Received by: Sign JM, Print JM, Firm Alpha, Date 3/4/16 Time 1435

Relinquished by: Sign AC, Print JM, Firm H&A, Date 3/3/16 Time 1745

Received by: Sign Michelle, Print Michelle, Firm Alpha, Date 3/3/16 Time 1745

LIQUID	20 TOTAL	VOA Vial	Amber Glass	Plastic Bottle	Preservative	Volume
X	X	X	X	X	X	X
AF	IL	250	IL	250	40	IL
ADAI	IL	250	40	IL	250	950
A	IL	250	40	IL	250	950
AI	IL	250	40	IL	250	950
AF	IL	250	40	IL	250	950
AC	IL	250	40	IL	250	950
AS	IL	250	40	IL	250	950
AT	IL	250	40	IL	250	950
AV	IL	250	40	IL	250	950
AW	IL	250	40	IL	250	950
AX	IL	250	40	IL	250	950

Sampling Comments: 7 (13/14) TBs Same as analysis.

Evidence samples were tampered with? YES NO  
If YES, please explain in section below.

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:  
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify) \_\_\_\_\_ includes  does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
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Boston, MA 02129-1400

# CHAIN OF CUSTODY RECORD L1605984

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

H&A FILE NO. 34099-074 LABORATORY Alpha DELIVERY DATE 3/4/2016  
PROJECT NAME Seaport Block M1+M2 ADDRESS Westborough, MA TURNAROUND TIME Standard  
H&A CONTACT \_\_\_\_\_ CONTACT Gina Hall PROJECT MANAGER Heather Scramton

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)							
					① VOA	② PCBs	③ PAHs	④ MCP Metals	⑤ Pesticides	⑥ PCBs	⑦ WPLL	⑧ Full Suite	⑨ Cyanide only	⑩ Lead (spec)	⑪ Lead (total)	⑫ Mercury (spec)	⑬ Mercury (total)			⑭ TSS	⑮ HexC	⑯ TPC				
HA-M2-11	3/4/16	1350	—	Ag	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	Laboratory to use applicable DEP CAM methods, unless otherwise directed. ① VOL 8260/sim ② 8270/TCL Sim ③ TOTRGP Metals ④ PCBs 608 ⑤ Dissolved RGP Metals P.F. ⑥ 504 ⑦ TPH 1664 ⑧ TCN ⑨ ACN, PACN ⑩ TSS 2540 ⑪ HexC TRC 45004 ⑫ TPHE NOL  ⑬/⑭ Trip blanks 504/8260

Sampled and Relinquished by: Matthew Dolson (Signature)  
Received by: J. M. [Signature]  
Date: 3/4/16 Time: 1430  
Firm: H&A  
Date: 3/4/16 Time: 1430  
Firm: AA

Relinquished by: AC (Signature)  
Received by: Willie an [Signature]  
Date: 3/3/16 Time: 1745  
Firm: JM  
Date: 3/3/16 Time: 1745  
Firm: Alpha

Sign	Print	Firm	Date	Time	Sign	Print	Firm	Date	Time	Sign	Print	Firm	Date	Time	Sign	Print	Firm	Date	Time	
[Signature]	Matthew Dolson	H&A	3/4/16	1430	[Signature]	J. M.	AA	3/4/16	1430	[Signature]	Willie an [Signature]	Alpha	3/3/16	1745	[Signature]					

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:  
The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
X This Chain of Custody Record (specify) \_\_\_\_\_ includes X does not include samples defined as Drinking Water Samples.  
If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyz

Analysis Requested	Number of Containers	Comments
① VOA		
② PCBs		
③ PAHs		
④ MCP Metals		
⑤ Pesticides		
⑥ PCBs		
⑦ WPLL		
⑧ Full Suite		
⑨ Cyanide only		
⑩ Lead (spec)		
⑪ Lead (total)		
⑫ Mercury (spec)		
⑬ Mercury (total)		
⑭ TSS		
⑮ HexC		
⑯ TPC		
⑰ TPHE NOL		



## ANALYTICAL REPORT

Lab Number:	L1606261
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Heather Scranton
Phone:	(617) 886-7400
Project Name:	SEAPORT BLOCK M 1&2
Project Number:	34099-074
Report Date:	03/14/16

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1606261-01	HA-M1-14	WATER	Not Specified	03/04/16 13:00	03/04/16
L1606261-02	TRIP BLANK	WATER	Not Specified	03/04/16 00:00	03/04/16

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. 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.

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**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

### Case Narrative (continued)

#### Semivolatile Organics

The WG872375-2/-3 LCS/LCSD recoveries, associated with L1606261-01 (HA-M1-14), were outside the acceptance criteria for individual target compounds; however, the criteria was achieved upon re-extraction outside of holding time. The results of both extractions are reported. All original results are considered to have a potentially high bias for 2,4-dinitrotoluene (LCSD at 100%) and p-chloro-m-cresol (101%/108%) and a potentially low bias for 1,2,4-trichlorobenzene (LCSD at 35%), 1,2-dichlorobenzene (38%/30%), 1,3-dichlorobenzene (35%/27%), 1,4-dichlorobenzene (LCSD at 28%), hexachlorocyclopentadiene (23%/22%) and aniline (19%/28%).

The WG872375-2/-3 LCS/LCSD recoveries, associated with L1606261-01 (HA-M1-14), are below the acceptance criteria for benzidine (0%/2%) and pyridine (2%/5%); however, they have been identified as "difficult" analytes. The results of the associated sample are reported.

#### Dissolved Metals

The WG872132-4 MS recovery for iron (0%), performed on L1606261-01 (HA-M1-14), does not apply because the sample concentration is greater than four times the spike amount added.

The WG872133-3 Laboratory Duplicate RPDs, performed on L1606261-01 (HA-M1-14), are outside the acceptance criteria for arsenic (30%) and nickel (36%). The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

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: 03/14/16

# ORGANICS

# VOLATILES

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

**Lab ID:** L1606261-01  
**Client ID:** HA-M1-14  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 03/10/16 13:18  
**Analyst:** MM

**Date Collected:** 03/04/16 13:00  
**Date Received:** 03/04/16  
**Field Prep:** None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

## SAMPLE RESULTS

Lab ID: L1606261-01

Date Collected: 03/04/16 13:00

Client ID: HA-M1-14

Date Received: 03/04/16

Sample Location: Not Specified

Field Prep: None

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

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01  
 Client ID: HA-M1-14  
 Sample Location: Not Specified

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
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
Freon-113	ND		ug/l	10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	111		70-130

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01  
 Client ID: HA-M1-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8260C-SIM(M)  
 Analytical Date: 03/10/16 11:08  
 Analyst: MM

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None

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:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01  
 Client ID: HA-M1-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 14,504.1  
 Analytical Date: 03/08/16 18:01  
 Analyst: NS

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None  
 Extraction Method: EPA 8011  
 Extraction Date: 03/08/16 13:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.011	--	1	A

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

**Lab ID:** L1606261-02  
**Client ID:** TRIP BLANK  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 03/10/16 12:25  
**Analyst:** MM

**Date Collected:** 03/04/16 00:00  
**Date Received:** 03/04/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

## SAMPLE RESULTS

Lab ID: L1606261-02

Date Collected: 03/04/16 00:00

Client ID: TRIP BLANK

Date Received: 03/04/16

Sample Location: Not Specified

Field Prep: Not Specified

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

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-02  
 Client ID: TRIP BLANK  
 Sample Location: Not Specified

Date Collected: 03/04/16 00:00  
 Date Received: 03/04/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
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
Freon-113	ND		ug/l	10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	115		70-130

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-02  
 Client ID: TRIP BLANK  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 14,504.1  
 Analytical Date: 03/08/16 18:16  
 Analyst: NS

Date Collected: 03/04/16 00:00  
 Date Received: 03/04/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 8011  
 Extraction Date: 03/08/16 13:36

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:** SEAPORT BLOCK M 1&2**Lab Number:** L1606261**Project Number:** 34099-074**Report Date:** 03/14/16**Method Blank Analysis  
Batch Quality Control****Analytical Method:** 14,504.1  
**Analytical Date:** 03/08/16 16:42  
**Analyst:** NS**Extraction Method:** EPA 8011  
**Extraction Date:** 03/08/16 13:36

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Microextractables by GC - Westborough Lab for sample(s): 01-02 Batch: WG871748-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A

**Project Name:** SEAPORT BLOCK M 1&2**Lab Number:** L1606261**Project Number:** 34099-074**Report Date:** 03/14/16**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C-SIM(M)

Analytical Date: 03/10/16 04:29

Analyst: MM

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG872538-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/10/16 07:36  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG872586-3					
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:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/10/16 07:36  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG872586-3					
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:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/10/16 07:36  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG872586-3					
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	--
Freon-113	ND		ug/l	10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	110		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1606261

**Report Date:** 03/14/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG871748-2									
1,2-Dibromoethane	112		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	97		-		70-130	-		20	A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Lab Number:** L1606261

**Project Number:** 34099-074

**Report Date:** 03/14/16

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG872538-1 WG872538-2								
1,4-Dioxane	91		113		70-130	22		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
Methylene chloride	95		94		70-130	1		20
1,1-Dichloroethane	95		95		70-130	0		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	106		106		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	108		108		63-130	0		20
1,1,2-Trichloroethane	101		100		70-130	1		20
2-Chloroethylvinyl ether	82		85		70-130	4		20
Tetrachloroethene	112		112		70-130	0		20
Chlorobenzene	102		101		75-130	1		25
Trichlorofluoromethane	98		98		62-150	0		20
1,2-Dichloroethane	98		98		70-130	0		20
1,1,1-Trichloroethane	100		101		67-130	1		20
Bromodichloromethane	102		103		67-130	1		20
trans-1,3-Dichloropropene	98		98		70-130	0		20
cis-1,3-Dichloropropene	102		104		70-130	2		20
1,1-Dichloropropene	94		95		70-130	1		20
Bromoform	101		103		54-136	2		20
1,1,2,2-Tetrachloroethane	89		91		67-130	2		20
Benzene	97		96		70-130	1		25
Toluene	93		93		70-130	0		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
Ethylbenzene	97		97		70-130	0		20
Chloromethane	93		92		64-130	1		20
Bromomethane	83		79		39-139	5		20
Vinyl chloride	101		101		55-140	0		20
Chloroethane	98		98		55-138	0		20
1,1-Dichloroethene	93		92		61-145	1		25
trans-1,2-Dichloroethene	92		92		70-130	0		20
Trichloroethene	99		99		70-130	0		25
1,2-Dichlorobenzene	103		104		70-130	1		20
1,3-Dichlorobenzene	104		106		70-130	2		20
1,4-Dichlorobenzene	103		103		70-130	0		20
Methyl tert butyl ether	91		92		63-130	1		20
p/m-Xylene	104		103		70-130	1		20
o-Xylene	103		103		70-130	0		20
cis-1,2-Dichloroethene	94		95		70-130	1		20
Dibromomethane	101		103		70-130	2		20
1,4-Dichlorobutane	85		87		70-130	2		20
Iodomethane	39	Q	46	Q	70-130	16		20
1,2,3-Trichloropropane	90		91		64-130	1		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	97		98		36-147	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
Acetone	88		86		58-148	2		20
Carbon disulfide	91		91		51-130	0		20
2-Butanone	102		99		63-138	3		20
Vinyl acetate	91		91		70-130	0		20
4-Methyl-2-pentanone	85		85		59-130	0		20
2-Hexanone	85		88		57-130	3		20
Ethyl methacrylate	85		86		70-130	1		20
Acrolein	82		84		70-130	2		20
Acrylonitrile	98		99		70-130	1		20
Bromochloromethane	116		114		70-130	2		20
Tetrahydrofuran	96		96		58-130	0		20
2,2-Dichloropropane	100		97		63-133	3		20
1,2-Dibromoethane	99		101		70-130	2		20
1,3-Dichloropropane	99		98		70-130	1		20
1,1,1,2-Tetrachloroethane	108		108		64-130	0		20
Bromobenzene	101		101		70-130	0		20
n-Butylbenzene	116		115		53-136	1		20
sec-Butylbenzene	109		109		70-130	0		20
tert-Butylbenzene	102		104		70-130	2		20
o-Chlorotoluene	91		91		70-130	0		20
p-Chlorotoluene	90		90		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
1,2-Dibromo-3-chloropropane	96		96		41-144	0		20
Hexachlorobutadiene	152	Q	152	Q	63-130	0		20
Isopropylbenzene	90		90		70-130	0		20
p-Isopropyltoluene	112		113		70-130	1		20
Naphthalene	88		90		70-130	2		20
n-Propylbenzene	93		93		69-130	0		20
1,2,3-Trichlorobenzene	106		108		70-130	2		20
1,2,4-Trichlorobenzene	106		108		70-130	2		20
1,3,5-Trimethylbenzene	99		100		64-130	1		20
1,3,5-Trichlorobenzene	113		113		70-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
trans-1,4-Dichloro-2-butene	75		78		70-130	4		20
Halothane	95		93		70-130	2		20
Ethyl ether	92		94		59-134	2		20
Methyl Acetate	92		95		70-130	3		20
Ethyl Acetate	86		88		70-130	2		20
Isopropyl Ether	87		89		70-130	2		20
Cyclohexane	89		90		70-130	1		20
Tert-Butyl Alcohol	108		114		70-130	5		20
Ethyl-Tert-Butyl-Ether	88		89		70-130	1		20
Tertiary-Amyl Methyl Ether	91		92		66-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG872586-1 WG872586-2								
1,4-Dioxane	80		91		56-162	13		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	90		91		70-130	1		20
Methyl cyclohexane	91		92		70-130	1		20
p-Diethylbenzene	107		108		70-130	1		20
4-Ethyltoluene	94		95		70-130	1		20
1,2,4,5-Tetramethylbenzene	88		89		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		102		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	83		84		70-130
Dibromofluoromethane	106		106		70-130

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG871748-3 QC Sample: L1605984-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.258	0.293	114		-	-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.258	0.250	97		-	-		70-130	-		20	A

# SEMIVOLATILES

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

**Lab ID:** L1606261-01  
**Client ID:** HA-M1-14  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 03/11/16 15:31  
**Analyst:** JB

**Date Collected:** 03/04/16 13:00  
**Date Received:** 03/04/16  
**Field Prep:** None  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/10/16 05:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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
Bis(2-ethylhexyl)phthalate	ND		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
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
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

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01  
 Client ID: HA-M1-14  
 Sample Location: Not Specified

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	76		10-120
4-Terphenyl-d14	81		41-149

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01  
 Client ID: HA-M1-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/11/16 12:46  
 Analyst: KV

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/10/16 05:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	0.12		ug/l	0.10	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	ND		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	0.41		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
1-Methylnaphthalene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

**Project Name:** SEAPORT BLOCK M 1&2**Lab Number:** L1606261**Project Number:** 34099-074**Report Date:** 03/14/16**SAMPLE RESULTS**

Lab ID: L1606261-01

Date Collected: 03/04/16 13:00

Client ID: HA-M1-14

Date Received: 03/04/16

Sample Location: Not Specified

Field Prep: None

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	99		15-120
2,4,6-Tribromophenol	<b>152</b>	Q	10-120
4-Terphenyl-d14	104		41-149

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01 RE  
 Client ID: HA-M1-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 03/12/16 23:54  
 Analyst: JB

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/12/16 12:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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
Bis(2-ethylhexyl)phthalate	ND		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
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
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

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

**Lab ID:** L1606261-01 RE  
**Client ID:** HA-M1-14  
**Sample Location:** Not Specified

**Date Collected:** 03/04/16 13:00  
**Date Received:** 03/04/16  
**Field Prep:** None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	25		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	66		15-120
2,4,6-Tribromophenol	98		10-120
4-Terphenyl-d14	91		41-149

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D  
 Analytical Date: 03/11/16 11:00  
 Analyst: JB

Extraction Method: EPA 3510C  
 Extraction Date: 03/10/16 05:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG872375-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	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	--
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	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	--
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	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/11/16 11:00  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/10/16 05:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG872375-1					
Dibenzofuran	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	--
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	--
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	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	82		41-149



Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/11/16 11:30  
 Analyst: KV

Extraction Method: EPA 3510C  
 Extraction Date: 03/10/16 05:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG872376-1					
Acenaphthene	ND		ug/l	0.10	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/11/16 11:30  
 Analyst: KV

Extraction Method: EPA 3510C  
 Extraction Date: 03/10/16 05:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG872376-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	142	Q	10-120
4-Terphenyl-d14	114		41-149

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/12/16 20:01  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/12/16 12:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG873264-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	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	--
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	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
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	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/12/16 20:01  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/12/16 12:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG873264-1					
Dibenzofuran	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	--
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	--
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	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	34		21-120
Phenol-d6	22		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	83		41-149



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

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: WG872375-2 WG872375-3								
Benzidine	0	Q	2	Q	10-75	179	Q	30
1,2,4-Trichlorobenzene	40		35	Q	39-98	13		30
Bis(2-chloroethyl)ether	71		70		40-140	1		30
1,2-Dichlorobenzene	38	Q	30	Q	40-140	24		30
1,3-Dichlorobenzene	35	Q	27	Q	40-140	26		30
1,4-Dichlorobenzene	36		28	Q	36-97	25		30
3,3'-Dichlorobenzidine	64		72		40-140	12		30
2,4-Dinitrotoluene	94		100	Q	24-96	6		30
2,6-Dinitrotoluene	104		115		40-140	10		30
Azobenzene	90		96		40-140	6		30
4-Chlorophenyl phenyl ether	77		87		40-140	12		30
4-Bromophenyl phenyl ether	90		95		40-140	5		30
Bis(2-chloroisopropyl)ether	45		47		40-140	4		30
Bis(2-chloroethoxy)methane	79		84		40-140	6		30
Hexachlorocyclopentadiene	23	Q	22	Q	40-140	4		30
Isophorone	88		92		40-140	4		30
Nitrobenzene	89		93		40-140	4		30
NDPA/DPA	89		94		40-140	5		30
Bis(2-ethylhexyl)phthalate	93		97		40-140	4		30
Butyl benzyl phthalate	97		104		40-140	7		30
Di-n-butylphthalate	96		101		40-140	5		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

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: WG872375-2 WG872375-3								
Di-n-octylphthalate	95		98		40-140	3		30
Diethyl phthalate	97		103		40-140	6		30
Dimethyl phthalate	92		97		40-140	5		30
Aniline	19	Q	28	Q	40-140	38	Q	30
4-Chloroaniline	72		80		40-140	11		30
2-Nitroaniline	101		108		52-143	7		30
3-Nitroaniline	72		77		25-145	7		30
4-Nitroaniline	84		91		51-143	8		30
Dibenzofuran	72		83		40-140	14		30
n-Nitrosodimethylamine	49		45		22-74	9		30
2,4,6-Trichlorophenol	99		107		30-130	8		30
p-Chloro-m-cresol	101	Q	108	Q	23-97	7		30
2-Chlorophenol	78		77		27-123	1		30
2,4-Dichlorophenol	96		101		30-130	5		30
2,4-Dimethylphenol	90		93		30-130	3		30
2-Nitrophenol	83		85		30-130	2		30
4-Nitrophenol	66		67		10-80	2		30
2,4-Dinitrophenol	88		92		20-130	4		30
4,6-Dinitro-o-cresol	92		95		20-164	3		30
Phenol	43		43		12-110	0		30
2-Methylphenol	77		77		30-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

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: WG872375-2 WG872375-3								
3-Methylphenol/4-Methylphenol	74		77		30-130	4		30
2,4,5-Trichlorophenol	91		99		30-130	8		30
Benzoic Acid	51		55		10-164	8		30
Benzyl Alcohol	82		81		26-116	1		30
Carbazole	90		96		55-144	6		30
Pyridine	2	Q	5	Q	10-66	82	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	56		53		21-120
Phenol-d6	43		43		10-120
Nitrobenzene-d5	89		91		23-120
2-Fluorobiphenyl	77		78		15-120
2,4,6-Tribromophenol	107		117		10-120
4-Terphenyl-d14	88		94		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

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: WG872376-2 WG872376-3								
Acenaphthene	75		81		37-111	8		40
2-Chloronaphthalene	70		78		40-140	11		40
Fluoranthene	98		104		40-140	6		40
Hexachlorobutadiene	55		64		40-140	15		40
Naphthalene	62		69		40-140	11		40
Benzo(a)anthracene	91		95		40-140	4		40
Benzo(a)pyrene	107		114		40-140	6		40
Benzo(b)fluoranthene	105		111		40-140	6		40
Benzo(k)fluoranthene	88		93		40-140	6		40
Chrysene	89		94		40-140	5		40
Acenaphthylene	80		86		40-140	7		40
Anthracene	88		94		40-140	7		40
Benzo(ghi)perylene	88		92		40-140	4		40
Fluorene	90		96		40-140	6		40
Phenanthrene	85		90		40-140	6		40
Dibenzo(a,h)anthracene	103		109		40-140	6		40
Indeno(1,2,3-cd)Pyrene	98		103		40-140	5		40
Pyrene	91		96		26-127	5		40
1-Methylnaphthalene	67		75		40-140	11		40
2-Methylnaphthalene	64		71		40-140	10		40
Pentachlorophenol	105	Q	111	Q	9-103	6		40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

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: WG872376-2 WG872376-3								
Hexachlorobenzene	85		89		40-140	5		40
Hexachloroethane	29	Q	32	Q	40-140	10		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	52		54		21-120
Phenol-d6	39		41		10-120
Nitrobenzene-d5	76		79		23-120
2-Fluorobiphenyl	88		92		15-120
2,4,6-Tribromophenol	148	Q	157	Q	10-120
4-Terphenyl-d14	103		109		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

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: WG873264-2 WG873264-3								
Benzidine	39		22		10-75	56	Q	30
1,2,4-Trichlorobenzene	52		46		39-98	12		30
Bis(2-chloroethyl)ether	76		65		40-140	16		30
1,2-Dichlorobenzene	51		44		40-140	15		30
1,3-Dichlorobenzene	49		42		40-140	15		30
1,4-Dichlorobenzene	48		42		36-97	13		30
3,3'-Dichlorobenzidine	89		79		40-140	12		30
2,4-Dinitrotoluene	103	Q	90		24-96	13		30
2,6-Dinitrotoluene	99		84		40-140	16		30
Azobenzene	88		75		40-140	16		30
4-Chlorophenyl phenyl ether	79		67		40-140	16		30
4-Bromophenyl phenyl ether	94		77		40-140	20		30
Bis(2-chloroisopropyl)ether	62		54		40-140	14		30
Bis(2-chloroethoxy)methane	84		71		40-140	17		30
Hexachlorocyclopentadiene	37	Q	33	Q	40-140	11		30
Isophorone	90		76		40-140	17		30
Nitrobenzene	78		68		40-140	14		30
NDPA/DPA	89		75		40-140	17		30
Bis(2-ethylhexyl)phthalate	95		83		40-140	13		30
Butyl benzyl phthalate	99		88		40-140	12		30
Di-n-butylphthalate	101		89		40-140	13		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

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: WG873264-2 WG873264-3								
Di-n-octylphthalate	101		91		40-140	10		30
Diethyl phthalate	97		83		40-140	16		30
Dimethyl phthalate	93		80		40-140	15		30
Aniline	53		32	Q	40-140	49	Q	30
4-Chloroaniline	87		73		40-140	18		30
2-Nitroaniline	96		86		52-143	11		30
3-Nitroaniline	82		73		25-145	12		30
4-Nitroaniline	90		78		51-143	14		30
Dibenzofuran	74		64		40-140	14		30
n-Nitrosodimethylamine	54		48		22-74	12		30
2,4,6-Trichlorophenol	90		77		30-130	16		30
p-Chloro-m-cresol	96		84		23-97	13		30
2-Chlorophenol	78		67		27-123	15		30
2,4-Dichlorophenol	90		79		30-130	13		30
2,4-Dimethylphenol	87		73		30-130	18		30
2-Nitrophenol	85		75		30-130	13		30
4-Nitrophenol	49		42		10-80	15		30
2,4-Dinitrophenol	78		68		20-130	14		30
4,6-Dinitro-o-cresol	88		75		20-164	16		30
Phenol	33		28		12-110	16		30
2-Methylphenol	77		63		30-130	20		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

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: WG873264-2 WG873264-3								
3-Methylphenol/4-Methylphenol	77		65		30-130	17		30
2,4,5-Trichlorophenol	95		81		30-130	16		30
Benzoic Acid	28		33		10-164	16		30
Benzyl Alcohol	72		64		26-116	12		30
Carbazole	98		87		55-144	12		30
Pyridine	30		18		10-66	50	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	50		43		21-120
Phenol-d6	35		31		10-120
Nitrobenzene-d5	86		75		23-120
2-Fluorobiphenyl	78		69		15-120
2,4,6-Tribromophenol	111		97		10-120
4-Terphenyl-d14	100		88		41-149

# PCBS

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01  
 Client ID: HA-M1-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,608  
 Analytical Date: 03/09/16 22:07  
 Analyst: JW

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None  
 Extraction Method: EPA 608  
 Extraction Date: 03/07/16 16:59  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 03/09/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 03/09/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
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	70		30-150	A
Decachlorobiphenyl	74		30-150	A

**Project Name:** SEAPORT BLOCK M 1&2**Lab Number:** L1606261**Project Number:** 34099-074**Report Date:** 03/14/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 5,608  
 Analytical Date: 03/09/16 22:56  
 Analyst: JW

Extraction Method: EPA 608  
 Extraction Date: 03/07/16 16:59  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 03/09/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 03/09/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG871426-1						
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	71		30-150	A
Decachlorobiphenyl	85		30-150	A

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871426-3 QC Sample: L1605770-01 Client ID: MS Sample													
Aroclor 1016	ND	1	0.972	97		-	-		40-140	-		50	A
Aroclor 1260	ND	1	0.785	78		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	69				30-150	A
Decachlorobiphenyl	84				30-150	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

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: WG871426-2									
Aroclor 1016	95		-		40-140	-		50	A
Aroclor 1260	83		-		40-140	-		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72				30-150	A
Decachlorobiphenyl	87				30-150	A

**Lab Duplicate Analysis**  
Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871426-4 QC Sample: L1605773-01 Client ID: DUP Sample						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		72		30-150	A
Decachlorobiphenyl	80		85		30-150	A



## METALS

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

Lab ID: L1606261-01  
 Client ID: HA-M1-14  
 Sample Location: Not Specified  
 Matrix: Water

Date Collected: 03/04/16 13:00  
 Date Received: 03/04/16  
 Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0006		mg/l	0.0005	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Chromium, Total	0.0017		mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Copper, Total	ND		mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Iron, Total	23		mg/l	0.05	--	1	03/08/16 10:45	03/09/16 13:21	EPA 3005A	19,200.7	PS
Lead, Total	0.0012		mg/l	0.0005	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	--	1	03/08/16 13:17	03/08/16 22:23	EPA 245.1	3,245.1	EA
Nickel, Total	0.0026		mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.005	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0004	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0100	--	1	03/08/16 10:45	03/08/16 17:36	EPA 3005A	1,6020A	TT
<b>Dissolved Metals - Westborough Lab</b>											
Antimony, Dissolved	ND		mg/l	0.0020	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0005		mg/l	0.0005	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0013		mg/l	0.0010	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0010	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Iron, Dissolved	12		mg/l	0.05	--	1	03/09/16 14:00	03/10/16 04:03	EPA 3005A	19,200.7	PS
Lead, Dissolved	ND		mg/l	0.0005	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	--	1	03/08/16 14:36	03/08/16 22:14	EPA 245.1	3,245.1	EA
Nickel, Dissolved	0.0028		mg/l	0.0010	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.005	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0100	--	1	03/09/16 14:00	03/10/16 14:11	EPA 3005A	1,6020A	TT



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

### Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG871643-1									
Antimony, Total	ND	mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Arsenic, Total	ND	mg/l	0.0005	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Cadmium, Total	ND	mg/l	0.0002	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Chromium, Total	ND	mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Copper, Total	ND	mg/l	0.0010	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Lead, Total	ND	mg/l	0.00050	--	1	03/08/16 10:45	03/09/16 13:53	1,6020A	KL
Nickel, Total	ND	mg/l	0.0020	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Selenium, Total	ND	mg/l	0.005	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Silver, Total	ND	mg/l	0.0004	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT
Zinc, Total	ND	mg/l	0.0100	--	1	03/08/16 10:45	03/08/16 15:33	1,6020A	TT

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG871647-1									
Iron, Total	ND	mg/l	0.05	--	1	03/08/16 10:45	03/09/16 12:52	19,200.7	PS

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG871713-1									
Mercury, Total	ND	mg/l	0.00020	--	1	03/08/16 13:17	03/08/16 22:19	3,245.1	EA

#### Prep Information

Digestion Method: EPA 245.1



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG871757-1									
Mercury, Dissolved	ND	mg/l	0.00020	--	1	03/08/16 14:36	03/08/16 22:10	3,245.1	EA

### Prep Information

Digestion Method: EPA 245.1

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG872132-1									
Iron, Dissolved	ND	mg/l	0.05	--	1	03/09/16 14:00	03/10/16 05:20	19,200.7	PS

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG872133-1									
Antimony, Dissolved	ND	mg/l	0.0020	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Arsenic, Dissolved	ND	mg/l	0.0005	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Cadmium, Dissolved	ND	mg/l	0.0002	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Chromium, Dissolved	ND	mg/l	0.0010	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Copper, Dissolved	ND	mg/l	0.0010	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Lead, Dissolved	ND	mg/l	0.0005	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Nickel, Dissolved	ND	mg/l	0.0010	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Selenium, Dissolved	ND	mg/l	0.005	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Silver, Dissolved	ND	mg/l	0.0004	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT
Zinc, Dissolved	ND	mg/l	0.0100	--	1	03/09/16 14:00	03/10/16 13:56	1,6020A	TT

### Prep Information

Digestion Method: EPA 3005A



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Lab Number:** L1606261

**Project Number:** 34099-074

**Report Date:** 03/14/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG871643-2								
Antimony, Total	85		-		80-120	-		
Arsenic, Total	90		-		80-120	-		
Cadmium, Total	93		-		80-120	-		
Chromium, Total	92		-		80-120	-		
Copper, Total	98		-		80-120	-		
Lead, Total	92		-		80-120	-		
Nickel, Total	95		-		80-120	-		
Selenium, Total	87		-		80-120	-		
Silver, Total	95		-		80-120	-		
Zinc, Total	89		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG871647-2								
Iron, Total	86		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG871713-2								
Mercury, Total	100		-		85-115	-		
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG871757-2								
Mercury, Dissolved	112		-		85-115	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1606261

**Report Date:** 03/14/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG872132-2					
Iron, Dissolved	90	-	85-115	-	
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG872133-2					
Antimony, Dissolved	96	-	80-120	-	
Arsenic, Dissolved	96	-	80-120	-	
Cadmium, Dissolved	102	-	80-120	-	
Chromium, Dissolved	96	-	80-120	-	
Copper, Dissolved	102	-	80-120	-	
Lead, Dissolved	97	-	80-120	-	
Nickel, Dissolved	101	-	80-120	-	
Selenium, Dissolved	94	-	80-120	-	
Silver, Dissolved	97	-	80-120	-	
Zinc, Dissolved	93	-	80-120	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871643-3 WG871643-4 QC Sample: L1600003-28 Client ID: MS Sample												
Antimony, Total	0.0006	0.5	0.4394	88		0.4520	90		75-125	3		20
Arsenic, Total	0.0051	0.12	0.1141	91		0.1146	91		75-125	0		20
Cadmium, Total	ND	0.051	0.0457	90		0.0483	95		75-125	6		20
Chromium, Total	ND	0.2	0.1828	91		0.1835	92		75-125	0		20
Copper, Total	ND	0.25	0.2824	113		0.2750	110		75-125	3		20
Lead, Total	ND	0.51	0.4562	89		0.4992	98		75-125	9		20
Nickel, Total	0.0049	0.5	0.4844	96		0.5002	99		75-125	3		20
Selenium, Total	ND	0.12	0.104	87		0.112	93		75-125	7		20
Silver, Total	ND	0.05	0.0475	95		0.0505	101		75-125	6		20
Zinc, Total	ND	0.5	0.4561	91		0.4585	92		75-125	1		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871647-3 WG871647-4 QC Sample: L1600003-21 Client ID: MS Sample												
Iron, Total	0.63	1	1.5	87		1.5	87		75-125	0		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871713-4 QC Sample: L1606261-01 Client ID: HA-M1-14												
Mercury, Total	ND	0.005	0.00476	95		-	-		70-130	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871757-4 QC Sample: L1606261-01 Client ID: HA-M1-14												
Mercury, Dissolved	ND	0.005	0.00464	93		-	-		75-125	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872132-4 QC Sample: L1606261-01 Client ID: HA-M1-14												
Iron, Dissolved	12	1	12	0	Q	-	-		75-125	-		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Lab Number:** L1606261

**Project Number:** 34099-074

**Report Date:** 03/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872133-4 QC Sample: L1606261-01 Client ID: HA-M1-14									
Antimony, Dissolved	ND	0.5	0.4743	95	-	-	75-125	-	20
Arsenic, Dissolved	0.0005	0.12	0.1055	87	-	-	75-125	-	20
Cadmium, Dissolved	ND	0.051	0.0489	96	-	-	75-125	-	20
Chromium, Dissolved	0.0013	0.2	0.1859	92	-	-	75-125	-	20
Copper, Dissolved	ND	0.25	0.2518	101	-	-	75-125	-	20
Lead, Dissolved	ND	0.51	0.4825	95	-	-	75-125	-	20
Nickel, Dissolved	0.0028	0.5	0.4912	98	-	-	75-125	-	20
Selenium, Dissolved	ND	0.12	0.128	107	-	-	75-125	-	20
Silver, Dissolved	ND	0.05	0.0411	82	-	-	75-125	-	20
Zinc, Dissolved	ND	0.5	0.4683	94	-	-	75-125	-	20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871713-3 QC Sample: L1606261-01 Client ID: HA-M1-14						
Mercury, Total	ND	ND	mg/l	NC		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871757-3 QC Sample: L1606261-01 Client ID: HA-M1-14						
Mercury, Dissolved	ND	ND	mg/l	NC		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872132-3 QC Sample: L1606261-01 Client ID: HA-M1-14						
Iron, Dissolved	12	11	mg/l	9		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872133-3 QC Sample: L1606261-01 Client ID: HA-M1-14						
Antimony, Dissolved	ND	ND	mg/l	NC		20
Arsenic, Dissolved	0.0005	0.0007	mg/l	30	Q	20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Chromium, Dissolved	0.0013	0.0016	mg/l	18		20
Copper, Dissolved	ND	ND	mg/l	NC		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Nickel, Dissolved	0.0028	0.0041	mg/l	36	Q	20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Zinc, Dissolved	ND	ND	mg/l	NC		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**SAMPLE RESULTS**

**Lab ID:** L1606261-01  
**Client ID:** HA-M1-14  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/04/16 13:00  
**Date Received:** 03/04/16  
**Field Prep:** None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	53.		mg/l	10	NA	2	-	03/08/16 13:40	30,2540D	SG
Cyanide, Total	ND		mg/l	0.005	--	1	03/07/16 09:34	03/07/16 14:23	30,4500CN-CE	ML
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/07/16 12:33	03/07/16 15:09	30,4500CN-G	JO
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	03/09/16 09:23	03/09/16 13:01	64,9014(M)	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/04/16 21:55	30,4500CL-D	MR
TPH, SGT-HEM	ND		mg/l	4.00	--	1	03/08/16 17:20	03/09/16 20:00	74,1664A	ML
Phenolics, Total	ND		mg/l	0.030	--	1	03/07/16 11:00	03/07/16 14:06	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/05/16 01:05	03/05/16 01:20	119,3500CR-B	LH
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	1500		mg/l	50.0	--	100	-	03/07/16 18:39	44,300.0	AU



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

**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: WG870860-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/04/16 21:55	30,4500CL-D	MR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG870877-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/05/16 01:05	03/05/16 01:20	119,3500CR-B	LH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG871273-1										
Cyanide, Total	ND		mg/l	0.005	--	1	03/07/16 09:34	03/07/16 14:09	30,4500CN-CE	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG871289-1										
Phenolics, Total	ND		mg/l	0.030	--	1	03/07/16 11:00	03/07/16 14:03	4,420.1	MP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG871318-1										
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/07/16 12:33	03/07/16 15:09	30,4500CN-G	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG871573-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/08/16 13:40	30,2540D	SG
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG871798-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	03/08/16 17:20	03/09/16 20:00	74,1664A	ML
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG871823-1										
Chloride	ND		mg/l	0.500	--	1	-	03/07/16 17:27	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG872031-1										
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	03/09/16 09:23	03/09/16 12:57	64,9014(M)	JO

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1606261

**Report Date:** 03/14/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG870860-2								
Chlorine, Total Residual	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG870877-2								
Chromium, Hexavalent	98		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG871273-2								
Cyanide, Total	90		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG871289-2								
Phenolics, Total	98		-		70-130	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG871318-2								
Cyanide, Amenable	100		-		85-115	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG871798-2								
TPH	85		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG871823-2								
Chloride	102		-		90-110	-		

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** SEAPORT BLOCK M 1&2

**Project Number:** 34099-074

**Lab Number:** L1606261

**Report Date:** 03/14/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG872031-2					
Cyanide, Physiologically Available	94	-	80-120	-	
General Chemistry - Westborough Lab NEGATIVE LCS Associated sample(s): 01 Batch: WG872031-5					
Cyanide, Physiologically Available	2	-	0-10	-	

### Matrix Spike Analysis Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Lab Number: L1606261

Project Number: 34099-074

Report Date: 03/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870877-4 QC Sample: L1606261-01 Client ID: HA-M1-14												
Chromium, Hexavalent	ND	0.1	0.101	101	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871273-4 WG871273-5 QC Sample: L1605825-04 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.180	90	0.182	91	91	91	90-110	1	-	30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871289-4 QC Sample: L1606261-01 Client ID: HA-M1-14												
Phenolics, Total	ND	0.4	0.39	98	-	-	-	-	70-130	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871798-4 QC Sample: L1606293-01 Client ID: MS Sample												
TPH	35.4	20.4	59.1	116	-	-	-	-	64-132	-	-	34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871823-3 QC Sample: L1606123-01 Client ID: MS Sample												
Chloride	350	100	462	113	-	-	-	-	40-151	-	-	18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872031-4 QC Sample: L1606261-01 Client ID: HA-M1-14												
Cyanide, Physiologically Available	ND	0.2	0.176	88	-	-	-	-	75-125	-	-	20

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: SEAPORT BLOCK M 1&amp;2

Project Number: 34099-074

Lab Number: L1606261

Report Date: 03/14/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870860-3 QC Sample: L1606207-01 Client ID: DUP Sample						
Chlorine, Total Residual	1.8	1.7	mg/l	6		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG870877-3 QC Sample: L1606261-01 Client ID: HA-M1-14						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871273-3 QC Sample: L1605825-04 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871289-3 QC Sample: L1606261-01 Client ID: HA-M1-14						
Phenolics, Total	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871318-3 QC Sample: L1605984-01 Client ID: DUP Sample						
Cyanide, Amenable	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871573-2 QC Sample: L1606025-02 Client ID: DUP Sample						
Solids, Total Suspended	420	430	mg/l	2		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871798-3 QC Sample: L1606293-01 Client ID: DUP Sample						
TPH	35.4	33.2	mg/l	6		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG871823-4 QC Sample: L1606123-01 Client ID: DUP Sample						
Chloride	350	350	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG872031-3 QC Sample: L1606267-01 Client ID: DUP Sample						
Cyanide, Physiologically Available	ND	ND	mg/l	NC		20

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information Custody Seal

##### Cooler

B Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1606261-01A	Vial HCl preserved	B	N/A	5.5	Y	Absent	8260-SIM(14),8260(14)
L1606261-01B	Vial HCl preserved	B	N/A	5.5	Y	Absent	8260-SIM(14),8260(14)
L1606261-01C	Vial HCl preserved	B	N/A	5.5	Y	Absent	8260-SIM(14),8260(14)
L1606261-01D	Vial Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> preserved	B	N/A	5.5	Y	Absent	504(14)
L1606261-01E	Vial Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> preserved	B	N/A	5.5	Y	Absent	504(14)
L1606261-01F	Plastic 250ml unpreserved	B	7	5.5	Y	Absent	-
L1606261-01G	Plastic 250ml NaOH preserved	B	>12	5.5	Y	Absent	TCN-4500(14),ACN-4500(14),PACN(14)
L1606261-01G1	Plastic 250ml NaOH preserved	B	>12	5.5	Y	Absent	TCN-4500(14),ACN-4500(14),PACN(14)
L1606261-01H	Plastic 950ml unpreserved	B	7	5.5	Y	Absent	TSS-2540(7)
L1606261-01I	Plastic 950ml unpreserved	B	7	5.5	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1606261-01J	Amber 950ml H <sub>2</sub> SO <sub>4</sub> preserved	B	<2	5.5	Y	Absent	TPHENOL-420(28)
L1606261-01K	Amber 1000ml HCl preserved	B	N/A	5.5	Y	Absent	TPH-1664(28)
L1606261-01L	Amber 1000ml HCl preserved	B	N/A	5.5	Y	Absent	TPH-1664(28)
L1606261-01M	Amber 1000ml Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	B	7	5.5	Y	Absent	PCB-608(7)
L1606261-01N	Amber 1000ml Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	B	7	5.5	Y	Absent	PCB-608(7)
L1606261-01O	Amber 1000ml unpreserved	B	7	5.5	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1606261-01P	Amber 1000ml unpreserved	B	7	5.5	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1606261-01Q	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	5.5	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1606261-01X	Plastic 120ml HNO <sub>3</sub> preserved spl	B	<2	5.5	Y	Absent	CU-6020S(180),FE-RI(180),SE-6020S(180),ZN-6020S(180),CR-6020S(180),NI-6020S(180),PB-6020S(180),AG-6020S(180),AS-6020S(180),HG-R(28),SB-6020S(180),CD-6020S(180)
L1606261-02A	Vial HCl preserved	B	N/A	5.5	Y	Absent	8260(14)
L1606261-02B	Vial Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> preserved	B	N/A	5.5	Y	Absent	504(14)

\*Values in parentheses indicate holding time in days

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

## 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.
LCS D	- 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.
MS D	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
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

**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.

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. 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).

Report Format: Data Usability Report



**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

#### Data Qualifiers

- 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.

**Project Name:** SEAPORT BLOCK M 1&2  
**Project Number:** 34099-074

**Lab Number:** L1606261  
**Report Date:** 03/14/16

## 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.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 64 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-III A (Revision 5). August 2004.
- 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.
- 119 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 21st Edition.

## 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 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene  
**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene  
**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.  
**EPA 1010A:** NPW: Ignitability  
**EPA 6010C:** NPW: Strontium; SCM: Strontium  
**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP  
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.  
**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.  
**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation  
**EPA 9038:** NPW: Sulfate  
**EPA 9050A:** NPW: Specific Conductance  
**EPA 9056:** NPW: Chloride, Nitrate, Sulfate  
**EPA 9065:** NPW: Phenols  
**EPA 9251:** NPW: Chloride  
**SM3500:** NPW: Ferrous Iron  
**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.  
**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam  
**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane  
**SM 2540D:** TSS  
**SM2540G:** SCM: Percent Solids  
**EPA 1631E:** SCM: Mercury  
**EPA 7474:** SCM: Mercury  
**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.  
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.  
**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.  
**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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.  
**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;  
**EPA 300.0:** 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.  
**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;  
**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;  
**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**  
**EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, 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, SM9222D-MF.**

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







## ANALYTICAL REPORT

Lab Number:	L1710924
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Heather Scranton
Phone:	(617) 886-7400
Project Name:	SEAPORT SQUARE BLOCK M
Project Number:	128458-002
Report Date:	04/13/17

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).

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



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1710924-01	HA-M2-11(OW)	WATER	145 SEAPORT BOULEVARD, BOSTON, MA	04/07/17 10:30	04/07/17

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

### 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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Case Narrative (continued)**

Volatile Organics

L1710924-01 (HA-M2-11(OW) ): The sample has elevated detection limits due to the dilution required by the sample matrix (foamy).

Volatile Organics by SIM

L1710924-01 (HA-M2-11(OW) ): The sample has an elevated detection limit due to the dilution required by the sample matrix (foamy).

Semivolatile Organics

The WG992387-2/-3 LCS/LCSD recoveries, associated with L1710924-01 (HA-M2-11(OW) ), are below the acceptance criteria for benzidine (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated sample are reported.

Cyanide, Total

L1710924-01 (HA-M2-11(OW) ): The sample has an elevated detection limit due to the dilution required by the sample matrix.

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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 04/13/17

# ORGANICS

# VOLATILES

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01  
 Client ID: HA-M2-11(OW)  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA

Date Collected: 04/07/17 10:30  
 Date Received: 04/07/17  
 Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water  
 Analytical Method: 1,8015D  
 Analytical Date: 04/12/17 17:44  
 Analyst: DP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Alcohol Analysis by GC/FID - Mansfield Lab						
Ethyl Alcohol	ND		mg/l	2.00	--	1

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**SAMPLE RESULTS**

**Lab ID:** L1710924-01  
**Client ID:** HA-M2-11(OW)  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 04/13/17 02:14  
**Analyst:** NS

**Date Collected:** 04/07/17 10:30  
**Date Received:** 04/07/17  
**Field Prep:** Field Filtered (Dissolved Metals)  
**Extraction Method:** EPA 504.1  
**Extraction Date:** 04/12/17 14:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.011	--	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.011	--	1	A

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01 D  
 Client ID: HA-M2-11(OW)  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA

Date Collected: 04/07/17 10:30  
 Date Received: 04/07/17  
 Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/13/17 08:50  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	15	--	5
1,1-Dichloroethane	ND		ug/l	3.8	--	5
Chloroform	ND		ug/l	3.8	--	5
Carbon tetrachloride	ND		ug/l	2.5	--	5
1,2-Dichloropropane	ND		ug/l	8.8	--	5
Dibromochloromethane	ND		ug/l	2.5	--	5
1,1,2-Trichloroethane	ND		ug/l	3.8	--	5
Tetrachloroethene	ND		ug/l	2.5	--	5
Chlorobenzene	ND		ug/l	2.5	--	5
Trichlorofluoromethane	ND		ug/l	12	--	5
1,2-Dichloroethane	ND		ug/l	2.5	--	5
1,1,1-Trichloroethane	ND		ug/l	2.5	--	5
Bromodichloromethane	ND		ug/l	2.5	--	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	--	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	--	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	--	5
1,1-Dichloropropene	ND		ug/l	12	--	5
Bromoform	ND		ug/l	10	--	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	5
Benzene	ND		ug/l	2.5	--	5
Toluene	ND		ug/l	3.8	--	5
Ethylbenzene	ND		ug/l	2.5	--	5
Chloromethane	ND		ug/l	12	--	5
Bromomethane	ND		ug/l	5.0	--	5
Vinyl chloride	ND		ug/l	5.0	--	5
Chloroethane	ND		ug/l	5.0	--	5
1,1-Dichloroethene	ND		ug/l	2.5	--	5
1,2-Dichloroethene, Total	ND		ug/l	2.5	--	5
Trichloroethene	ND		ug/l	2.5	--	5

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01 D

Date Collected: 04/07/17 10:30

Client ID: HA-M2-11(OW)

Date Received: 04/07/17

Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA

Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/l	12	--	5
1,3-Dichlorobenzene	ND		ug/l	12	--	5
1,4-Dichlorobenzene	ND		ug/l	12	--	5
Methyl tert butyl ether	ND		ug/l	5.0	--	5
p/m-Xylene	ND		ug/l	5.0	--	5
o-Xylene	ND		ug/l	5.0	--	5
Xylenes, Total	ND		ug/l	5.0	--	5
cis-1,2-Dichloroethene	ND		ug/l	2.5	--	5
Dibromomethane	ND		ug/l	25	--	5
1,4-Dichlorobutane	ND		ug/l	25	--	5
1,2,3-Trichloropropane	ND		ug/l	25	--	5
Styrene	ND		ug/l	5.0	--	5
Dichlorodifluoromethane	ND		ug/l	25	--	5
Acetone	ND		ug/l	25	--	5
Carbon disulfide	ND		ug/l	25	--	5
2-Butanone	ND		ug/l	25	--	5
Vinyl acetate	ND		ug/l	25	--	5
4-Methyl-2-pentanone	ND		ug/l	25	--	5
2-Hexanone	ND		ug/l	25	--	5
Ethyl methacrylate	ND		ug/l	25	--	5
Acrylonitrile	ND		ug/l	25	--	5
Bromochloromethane	ND		ug/l	12	--	5
Tetrahydrofuran	ND		ug/l	25	--	5
2,2-Dichloropropane	ND		ug/l	12	--	5
1,2-Dibromoethane	ND		ug/l	10	--	5
1,3-Dichloropropane	ND		ug/l	12	--	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	5
Bromobenzene	ND		ug/l	12	--	5
n-Butylbenzene	ND		ug/l	2.5	--	5
sec-Butylbenzene	ND		ug/l	2.5	--	5
tert-Butylbenzene	ND		ug/l	12	--	5
o-Chlorotoluene	ND		ug/l	12	--	5
p-Chlorotoluene	ND		ug/l	12	--	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	--	5
Hexachlorobutadiene	ND		ug/l	2.5	--	5
Isopropylbenzene	ND		ug/l	2.5	--	5
p-Isopropyltoluene	ND		ug/l	2.5	--	5
Naphthalene	39		ug/l	12	--	5

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**SAMPLE RESULTS**

Lab ID: L1710924-01 D  
 Client ID: HA-M2-11(OW)  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA

Date Collected: 04/07/17 10:30  
 Date Received: 04/07/17  
 Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	--	5
1,2,3-Trichlorobenzene	ND		ug/l	12	--	5
1,2,4-Trichlorobenzene	ND		ug/l	12	--	5
1,3,5-Trimethylbenzene	ND		ug/l	12	--	5
1,2,4-Trimethylbenzene	ND		ug/l	12	--	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	--	5
Ethyl ether	ND		ug/l	12	--	5
Tert-Butyl Alcohol	ND		ug/l	50	--	5
Tertiary-Amyl Methyl Ether	ND		ug/l	10	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	117		70-130

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01 D  
 Client ID: HA-M2-11(OW)  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA

Date Collected: 04/07/17 10:30  
 Date Received: 04/07/17  
 Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water  
 Analytical Method: 1,8260C-SIM(M)  
 Analytical Date: 04/13/17 08:50  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	15	--	5

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8015D  
Analytical Date: 04/11/17 16:52  
Analyst: DP

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Alcohol Analysis by GC/FID - Mansfield Lab for sample(s): 01 Batch: WG993156-1					
Ethyl Alcohol	ND		mg/l	2.00	--

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 14,504.1  
 Analytical Date: 04/12/17 19:02  
 Analyst: NS

Extraction Method: EPA 504.1  
 Extraction Date: 04/12/17 14:41

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG993546-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	-- A

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C-SIM(M)

Analytical Date: 04/13/17 08:08

Analyst: MM

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG993911-5					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/13/17 08:08  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG993914-5					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/13/17 08:08  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG993914-5					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/13/17 08:08  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG993914-5					
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	111		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	111		70-130

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Alcohol Analysis by GC/FID - Mansfield Lab Associated sample(s): 01 Batch: WG993156-2 WG993156-3								
Ethyl Alcohol	88		95		70-130	8		30

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Lab Number:** L1710924

**Project Number:** 128458-002

**Report Date:** 04/13/17

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG993546-2									
1,2-Dibromoethane	113		-		70-130	-			A
1,2-Dibromo-3-chloropropane	115		-		70-130	-			A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Project Number:** 128458-002

**Lab Number:** L1710924

**Report Date:** 04/13/17

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG993911-3 WG993911-4								
1,4-Dioxane	94		99		70-130	5		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Lab Number:** L1710924

**Project Number:** 128458-002

**Report Date:** 04/13/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG993914-3 WG993914-4								
Methylene chloride	90		88		70-130	2		20
1,1-Dichloroethane	88		86		70-130	2		20
Chloroform	94		96		70-130	2		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	84		84		70-130	0		20
Dibromochloromethane	110		110		63-130	0		20
1,1,2-Trichloroethane	100		99		70-130	1		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	100		99		75-130	1		25
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	100		98		70-130	2		20
1,1,1-Trichloroethane	96		94		67-130	2		20
Bromodichloromethane	90		90		67-130	0		20
trans-1,3-Dichloropropene	95		96		70-130	1		20
cis-1,3-Dichloropropene	86		88		70-130	2		20
1,1-Dichloropropene	88		87		70-130	1		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	97		98		67-130	1		20
Benzene	86		84		70-130	2		25
Toluene	100		97		70-130	3		25
Ethylbenzene	100		100		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

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: WG993914-3 WG993914-4								
Chloromethane	81		78		64-130	4		20
Bromomethane	55		54		39-139	2		20
Vinyl chloride	81		80		55-140	1		20
Chloroethane	85		86		55-138	1		20
1,1-Dichloroethene	91		88		61-145	3		25
Trichloroethene	92		91		70-130	1		25
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	91		96		63-130	5		20
p/m-Xylene	110		105		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	92		92		70-130	0		20
Dibromomethane	96		97		70-130	1		20
1,4-Dichlorobutane	98		100		70-130	2		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Styrene	115		110		70-130	4		20
Dichlorodifluoromethane	120		110		36-147	9		20
Acetone	80		85		58-148	6		20
Carbon disulfide	87		83		51-130	5		20
2-Butanone	94		100		63-138	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

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: WG993914-3 WG993914-4								
Vinyl acetate	89		92		70-130	3		20
4-Methyl-2-pentanone	93		94		59-130	1		20
2-Hexanone	88		92		57-130	4		20
Ethyl methacrylate	89		88		70-130	1		20
Acrylonitrile	92		98		70-130	6		20
Bromochloromethane	100		98		70-130	2		20
Tetrahydrofuran	91		90		58-130	1		20
2,2-Dichloropropane	90		88		63-133	2		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	99		100		70-130	1		20
1,1,1,2-Tetrachloroethane	110		110		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	120		100		70-130	18		20
tert-Butylbenzene	110		100		70-130	10		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	100		110		41-144	10		20
Hexachlorobutadiene	110		120		63-130	9		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	98		96		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

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: WG993914-3 WG993914-4								
Naphthalene	88		90		70-130	2		20
n-Propylbenzene	100		98		69-130	2		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	110		110		64-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
trans-1,4-Dichloro-2-butene	94		96		70-130	2		20
Ethyl ether	85		86		59-134	1		20
Tert-Butyl Alcohol	94		96		70-130	2		20
Tertiary-Amyl Methyl Ether	91		91		66-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		107		70-130
Toluene-d8	105		105		70-130
4-Bromofluorobenzene	99		97		70-130
Dibromofluoromethane	98		103		70-130

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG993546-3 QC Sample: L1711136-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.273	0.272	100		-	-		65-135	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.273	0.268	98		-	-		65-135	-		20	A

# SEMIVOLATILES

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01  
 Client ID: HA-M2-11(OW)  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA  
 Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 04/13/17 13:02  
 Analyst: SZ

Date Collected: 04/07/17 10:30  
 Date Received: 04/07/17  
 Field Prep: Field Filtered (Dissolved Metals)  
 Extraction Method: EPA 3510C  
 Extraction Date: 04/08/17 12:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	4.1		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
4-Chloroaniline	ND		ug/l	5.0	--	1
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01

Date Collected: 04/07/17 10:30

Client ID: HA-M2-11(OW)

Date Received: 04/07/17

Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA

Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
4-Nitroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	5.0		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	3.8		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	69		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**SAMPLE RESULTS**

**Lab ID:** L1710924-01  
**Client ID:** HA-M2-11(OW)  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 04/10/17 12:28  
**Analyst:** KL

**Date Collected:** 04/07/17 10:30  
**Date Received:** 04/07/17  
**Field Prep:** Field Filtered (Dissolved Metals)  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 04/08/17 12:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	10		ug/l	0.10	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	1.1		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	26	E	ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	1.4		ug/l	0.20	--	1
Anthracene	1.6		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	5.4		ug/l	0.20	--	1
Phenanthrene	2.8		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	--	1
Pyrene	0.65		ug/l	0.20	--	1
1-Methylnaphthalene	3.5		ug/l	0.20	--	1
2-Methylnaphthalene	2.6		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01

Date Collected: 04/07/17 10:30

Client ID: HA-M2-11(OW)

Date Received: 04/07/17

Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA

Field Prep: Field Filtered (Dissolved Metals)

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	105		10-120
4-Terphenyl-d14	71		41-149

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**SAMPLE RESULTS**

Lab ID: L1710924-01 D  
 Client ID: HA-M2-11(OW)  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON, MA  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/11/17 18:00  
 Analyst: KL

Date Collected: 04/07/17 10:30  
 Date Received: 04/07/17  
 Field Prep: Field Filtered (Dissolved Metals)  
 Extraction Method: EPA 3510C  
 Extraction Date: 04/08/17 12:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	28		ug/l	0.40	--	2

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 04/10/17 11:33  
**Analyst:** CB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 04/08/17 12:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG992387-1					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 04/10/17 11:33  
Analyst: CB

Extraction Method: EPA 3510C  
Extraction Date: 04/08/17 12:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG992387-1					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 04/10/17 11:33  
**Analyst:** CB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 04/08/17 12:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG992387-1					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 04/10/17 11:33  
Analyst: CB

Extraction Method: EPA 3510C  
Extraction Date: 04/08/17 12:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG992387-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	27		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	96		10-120
4-Terphenyl-d14	75		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 04/10/17 07:57  
**Analyst:** KL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 04/08/17 12:37

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG992389-1					
Acenaphthene	ND		ug/l	0.10	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1710924**Project Number:** 128458-002**Report Date:** 04/13/17**Method Blank Analysis  
Batch Quality Control**Analytical Method: 1,8270D-SIM  
Analytical Date: 04/10/17 07:57  
Analyst: KLExtraction Method: EPA 3510C  
Extraction Date: 04/08/17 12:37

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG992389-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	86		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

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: WG992387-2 WG992387-3								
Acenaphthene	52		70		37-111	30		30
Benidine	0	Q	0	Q	10-75	NC		30
1,2,4-Trichlorobenzene	48		62		39-98	25		30
Hexachlorobenzene	69		94		40-140	31	Q	30
Bis(2-chloroethyl)ether	47		62		40-140	28		30
2-Chloronaphthalene	55		73		40-140	28		30
1,2-Dichlorobenzene	42		57		40-140	30		30
1,3-Dichlorobenzene	42		56		40-140	29		30
1,4-Dichlorobenzene	42		57		36-97	30		30
3,3'-Dichlorobenzidine	47		40		40-140	16		30
2,4-Dinitrotoluene	62		86		48-143	32	Q	30
2,6-Dinitrotoluene	71		92		40-140	26		30
Azobenzene	68		92		40-140	30		30
Fluoranthene	57		80		40-140	34	Q	30
4-Chlorophenyl phenyl ether	58		81		40-140	33	Q	30
4-Bromophenyl phenyl ether	68		91		40-140	29		30
Bis(2-chloroisopropyl)ether	37	Q	51		40-140	32	Q	30
Bis(2-chloroethoxy)methane	55		71		40-140	25		30
Hexachlorobutadiene	45		64		40-140	35	Q	30
Hexachlorocyclopentadiene	46		63		40-140	31	Q	30
Hexachloroethane	42		56		40-140	29		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

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: WG992387-2 WG992387-3								
Isophorone	57		74		40-140	26		30
Naphthalene	47		65		40-140	32	Q	30
Nitrobenzene	55		71		40-140	25		30
NDPA/DPA	58		80		40-140	32	Q	30
n-Nitrosodi-n-propylamine	54		71		29-132	27		30
Bis(2-ethylhexyl)phthalate	65		92		40-140	34	Q	30
Butyl benzyl phthalate	56		76		40-140	30		30
Di-n-butylphthalate	61		85		40-140	33	Q	30
Di-n-octylphthalate	65		92		40-140	34	Q	30
Diethyl phthalate	65		88		40-140	30		30
Dimethyl phthalate	70		92		40-140	27		30
Benzo(a)anthracene	56		80		40-140	35	Q	30
Benzo(a)pyrene	58		81		40-140	33	Q	30
Benzo(b)fluoranthene	56		83		40-140	39	Q	30
Benzo(k)fluoranthene	59		80		40-140	30		30
Chrysene	56		79		40-140	34	Q	30
Acenaphthylene	60		79		45-123	27		30
Anthracene	53		74		40-140	33	Q	30
Benzo(ghi)perylene	57		82		40-140	36	Q	30
Fluorene	57		79		40-140	32	Q	30
Phenanthrene	54		77		40-140	35	Q	30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

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: WG992387-2 WG992387-3								
Dibenzo(a,h)anthracene	55		83		40-140	41	Q	30
Indeno(1,2,3-cd)pyrene	58		85		40-140	38	Q	30
Pyrene	55		76		26-127	32	Q	30
Biphenyl	57		77		40-140	30		30
Aniline	23	Q	22	Q	40-140	4		30
4-Chloroaniline	46		53		40-140	14		30
1-Methylnaphthalene	61		84		41-103	32	Q	30
2-Nitroaniline	68		89		52-143	27		30
3-Nitroaniline	46		45		25-145	2		30
4-Nitroaniline	56		72		51-143	25		30
Dibenzofuran	55		77		40-140	33	Q	30
2-Methylnaphthalene	50		68		40-140	31	Q	30
n-Nitrosodimethylamine	28		36		22-74	25		30
2,4,6-Trichlorophenol	65		94		30-130	36	Q	30
p-Chloro-m-cresol	63		88		23-97	33	Q	30
2-Chlorophenol	54		69		27-123	24		30
2,4-Dichlorophenol	62		84		30-130	30		30
2,4-Dimethylphenol	24	Q	41		30-130	52	Q	30
2-Nitrophenol	60		77		30-130	25		30
4-Nitrophenol	44		64		10-80	37	Q	30
2,4-Dinitrophenol	62		84		20-130	30		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

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: WG992387-2 WG992387-3								
4,6-Dinitro-o-cresol	65		92		20-164	34	Q	30
Pentachlorophenol	75		99		9-103	28		30
Phenol	22		29		12-110	27		30
2-Methylphenol	42		59		30-130	34	Q	30
3-Methylphenol/4-Methylphenol	46		61		30-130	28		30
2,4,5-Trichlorophenol	69		94		30-130	31	Q	30
Benzoic Acid	19		37		10-164	64	Q	30
Benzyl Alcohol	50		68		26-116	31	Q	30
Carbazole	55		77		55-144	33	Q	30
Pyridine	12		16		10-66	29		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	35		46		21-120
Phenol-d6	24		33		10-120
Nitrobenzene-d5	59		77		23-120
2-Fluorobiphenyl	61		82		15-120
2,4,6-Tribromophenol	77		109		10-120
4-Terphenyl-d14	55		77		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

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: WG992389-2 WG992389-3								
Acenaphthene	83		98		37-111	17		40
2-Chloronaphthalene	68		76		40-140	11		40
Fluoranthene	93		115		40-140	21		40
Hexachlorobutadiene	62		66		40-140	6		40
Naphthalene	62		67		40-140	8		40
Benzo(a)anthracene	91		112		40-140	21		40
Benzo(a)pyrene	100		123		40-140	21		40
Benzo(b)fluoranthene	100		128		40-140	25		40
Benzo(k)fluoranthene	108		127		40-140	16		40
Chrysene	101		124		40-140	20		40
Acenaphthylene	70		80		40-140	13		40
Anthracene	93		112		40-140	19		40
Benzo(ghi)perylene	103		127		40-140	21		40
Fluorene	80		97		40-140	19		40
Phenanthrene	85		104		40-140	20		40
Dibenzo(a,h)anthracene	103		128		40-140	22		40
Indeno(1,2,3-cd)pyrene	102		128		40-140	23		40
Pyrene	91		111		26-127	20		40
1-Methylnaphthalene	65		72		40-140	10		40
2-Methylnaphthalene	66		72		40-140	9		40
Pentachlorophenol	98		118	Q	9-103	19		40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

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: WG992389-2 WG992389-3								
Hexachlorobenzene	89		111		40-140	22		40
Hexachloroethane	71		73		40-140	3		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	50		52		21-120
Phenol-d6	36		40		10-120
Nitrobenzene-d5	86		97		23-120
2-Fluorobiphenyl	71		79		15-120
2,4,6-Tribromophenol	118		136	Q	10-120
4-Terphenyl-d14	93		114		41-149

# PCBS

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**SAMPLE RESULTS**

**Lab ID:** L1710924-01  
**Client ID:** HA-M2-11(OW)  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 04/12/17 07:16  
**Analyst:** JW

**Date Collected:** 04/07/17 10:30  
**Date Received:** 04/07/17  
**Field Prep:** Field Filtered (Dissolved Metals)  
**Extraction Method:** EPA 608  
**Extraction Date:** 04/08/17 13:17  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 04/09/17  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 04/09/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
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	83		30-150	A
Decachlorobiphenyl	46		30-150	A

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 5,608  
Analytical Date: 04/10/17 13:15  
Analyst: JW

Extraction Method: EPA 608  
Extraction Date: 04/08/17 13:17  
Cleanup Method: EPA 3665A  
Cleanup Date: 04/09/17  
Cleanup Method: EPA 3660B  
Cleanup Date: 04/09/17

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG992399-1						
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	75		30-150	A
Decachlorobiphenyl	66		30-150	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

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: WG992399-2									
Aroclor 1016	73		-		40-140	-		50	A
Aroclor 1260	77		-		40-140	-		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80				30-150	A
Decachlorobiphenyl	72				30-150	A

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992399-3 QC Sample: L1700004-28 Client ID: MS Sample													
Aroclor 1016	ND	1	0.927	93		-	-		40-140	-		50	A
Aroclor 1260	ND	1	0.847	85		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	87				30-150	A
Decachlorobiphenyl	71				30-150	A



## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992399-4 QC Sample: L1700004-28 Client ID: DUP Sample						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		80		30-150	A
Decachlorobiphenyl	74		69		30-150	A

## METALS

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**SAMPLE RESULTS**

**Lab ID:** L1710924-01  
**Client ID:** HA-M2-11(OW)  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON,  
**Matrix:** Water

**Date Collected:** 04/07/17 10:30  
**Date Received:** 04/07/17  
**Field Prep:** Field Filtered  
 (Dissolved  
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Antimony, Total	ND		mg/l	0.00400	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Arsenic, Total	0.00309		mg/l	0.00050	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Cadmium, Total	ND		mg/l	0.00020	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Chromium, Total	0.00121		mg/l	0.00100	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Copper, Total	ND		mg/l	0.00100	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Iron, Total	18.0		mg/l	0.050	--	1	04/11/17 11:04	04/13/17 00:37	EPA 3005A	19,200.7	AM
Lead, Total	0.00098		mg/l	0.00050	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Mercury, Total	ND		mg/l	0.00020	--	1	04/11/17 13:55	04/13/17 13:25	EPA 245.1	3,245.1	BV
Nickel, Total	ND		mg/l	0.00200	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Selenium, Total	ND		mg/l	0.00500	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Silver, Total	ND		mg/l	0.00040	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
Zinc, Total	ND		mg/l	0.01000	--	1	04/11/17 11:04	04/13/17 12:23	EPA 3005A	1,6020A	BV
<b>Total Hardness by SM 2340B - Mansfield Lab</b>											
Hardness	390		mg/l	0.660	NA	1	04/11/17 11:04	04/13/17 00:37	EPA 3005A	19,200.7	AM
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	--	1		04/13/17 12:23	NA	107,-	



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

### Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG993025-1									
Antimony, Total	ND	mg/l	0.00400	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Arsenic, Total	ND	mg/l	0.00050	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Cadmium, Total	ND	mg/l	0.00020	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Chromium, Total	ND	mg/l	0.00100	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Copper, Total	ND	mg/l	0.00100	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Lead, Total	ND	mg/l	0.00050	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Nickel, Total	ND	mg/l	0.00200	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Selenium, Total	ND	mg/l	0.00500	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Silver, Total	ND	mg/l	0.00040	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV
Zinc, Total	ND	mg/l	0.01000	--	1	04/11/17 11:04	04/13/17 11:22	1,6020A	BV

#### 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 Batch: WG993028-1									
Iron, Total	ND	mg/l	0.050	--	1	04/11/17 11:04	04/13/17 01:11	19,200.7	AM

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01 Batch: WG993028-1									
Hardness	ND	mg/l	0.660	NA	1	04/11/17 11:04	04/13/17 01:11	19,200.7	AM

#### Prep Information

Digestion Method: EPA 3005A



Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG993121-1									
Mercury, Total	ND	mg/l	0.00020	--	1	04/11/17 13:55	04/13/17 13:22	3,245.1	BV

### Prep Information

Digestion Method: EPA 245.1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Lab Number:** L1710924

**Project Number:** 128458-002

**Report Date:** 04/13/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG993025-2								
Antimony, Total	94		-		80-120	-		
Arsenic, Total	96		-		80-120	-		
Cadmium, Total	99		-		80-120	-		
Chromium, Total	97		-		80-120	-		
Copper, Total	96		-		80-120	-		
Lead, Total	94		-		80-120	-		
Nickel, Total	95		-		80-120	-		
Selenium, Total	103		-		80-120	-		
Silver, Total	94		-		80-120	-		
Zinc, Total	98		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG993028-2								
Iron, Total	104		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 Batch: WG993028-2								
Hardness	100		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG993121-2								
Mercury, Total	103		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG993025-3    QC Sample: L1710924-01    Client ID: HA-M2-11(OW)												
Antimony, Total	ND	0.5	0.5515	110	-	-	-	-	75-125	-	-	20
Arsenic, Total	0.00309	0.12	0.1072	87	-	-	-	-	75-125	-	-	20
Cadmium, Total	ND	0.051	0.05326	104	-	-	-	-	75-125	-	-	20
Chromium, Total	0.00121	0.2	0.1905	95	-	-	-	-	75-125	-	-	20
Copper, Total	ND	0.25	0.2334	93	-	-	-	-	75-125	-	-	20
Lead, Total	0.00098	0.51	0.4276	84	-	-	-	-	75-125	-	-	20
Nickel, Total	ND	0.5	0.4824	96	-	-	-	-	75-125	-	-	20
Selenium, Total	ND	0.12	0.118	98	-	-	-	-	75-125	-	-	20
Silver, Total	ND	0.05	0.04763	95	-	-	-	-	75-125	-	-	20
Zinc, Total	ND	0.5	0.4939	99	-	-	-	-	75-125	-	-	20
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG993028-3    QC Sample: L1710924-01    Client ID: HA-M2-11(OW)												
Iron, Total	18.0	1	18.8	80	-	-	-	-	75-125	-	-	20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG993028-3    QC Sample: L1710924-01    Client ID: HA-M2-11(OW)												
Hardness	390	66.2	444	82	-	-	-	-	75-125	-	-	20
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG993121-3    QC Sample: L1710924-01    Client ID: HA-M2-11(OW)												
Mercury, Total	ND	0.005	0.00449	90	-	-	-	-	70-130	-	-	20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
<b>Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG993025-4 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)</b>						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00309	0.00332	mg/l	7		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.00121	0.00114	mg/l	6		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	0.00098	0.00098	mg/l	0		20
Nickel, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	ND	mg/l	NC		20
<b>Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG993028-4 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)</b>						
Iron, Total	18.0	18.4	mg/l	2		20
<b>Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG993028-4 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)</b>						
Hardness	390	399	mg/l	2		20
<b>Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG993121-4 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)</b>						
Mercury, Total	ND	ND	mg/l	NC		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**SAMPLE RESULTS**

**Lab ID:** L1710924-01  
**Client ID:** HA-M2-11(OW)  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON,  
**Matrix:** Water

**Date Collected:** 04/07/17 10:30  
**Date Received:** 04/07/17  
**Field Prep:** Field Filtered  
(Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	28.		mg/l	5.0	NA	1	-	04/12/17 13:00	121,2540D	DW
Cyanide, Total	ND		mg/l	0.010	--	2	04/10/17 11:10	04/10/17 16:57	121,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/07/17 21:52	121,4500CL-D	AS
Nitrogen, Ammonia	2.70		mg/l	0.075	--	1	04/10/17 20:00	04/11/17 22:01	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00	--	1	04/10/17 16:30	04/10/17 21:44	74,1664A	ML
Phenolics, Total	ND		mg/l	0.030	--	1	04/10/17 10:06	04/10/17 13:19	4,420.1	AW
Chromium, Hexavalent	ND		mg/l	0.010	--	1	04/08/17 00:31	04/08/17 01:09	121,3500CR-B	KA
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	1370		mg/l	50.0	--	100	-	04/10/17 19:01	44,300.0	JC



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

**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: WG992269-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/07/17 21:52	121,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG992298-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	04/08/17 00:31	04/08/17 01:08	121,3500CR-B	KA
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG992639-1										
Cyanide, Total	ND		mg/l	0.005	--	1	04/10/17 11:10	04/10/17 14:22	121,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG992671-1										
Phenolics, Total	ND		mg/l	0.030	--	1	04/10/17 10:06	04/10/17 12:43	4,420.1	AW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG992820-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	04/10/17 16:30	04/10/17 21:44	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG992870-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	04/10/17 20:00	04/11/17 21:43	121,4500NH3-BH	AT
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG993233-1										
Chloride	ND		mg/l	0.500	--	1	-	04/10/17 18:13	44,300.0	JC
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG993391-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	04/12/17 13:00	121,2540D	DW

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Lab Number:** L1710924

**Project Number:** 128458-002

**Report Date:** 04/13/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG992269-2								
Chlorine, Total Residual	109		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG992298-2								
Chromium, Hexavalent	101		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG992639-2								
Cyanide, Total	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG992671-2								
Phenolics, Total	94		-		70-130	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG992820-2								
TPH	95		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG992870-2								
Nitrogen, Ammonia	92		-		80-120	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG993233-2								
Chloride	104		-		90-110	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992269-4 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)												
Chlorine, Total Residual	ND	1.24	1.1	87	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992298-3 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)												
Chromium, Hexavalent	ND	0.1	0.108	108	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992639-4 QC Sample: L1710020-03 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.197	98	-	-	-	-	90-110	-	-	30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992671-4 QC Sample: L1709128-23 Client ID: MS Sample												
Phenolics, Total	0.66	0.4	1.1	105	-	-	-	-	70-130	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992820-4 QC Sample: L1710713-02 Client ID: MS Sample												
TPH	ND	20.4	17.1	84	-	-	-	-	64-132	-	-	34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992870-4 QC Sample: L1710710-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.742	4	4.45	93	-	-	-	-	80-120	-	-	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG993233-3 QC Sample: L1711028-06 Client ID: MS Sample												
Chloride	ND	4	4.18	104	-	-	-	-	90-110	-	-	18

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1710924

Report Date: 04/13/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992269-3 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992298-4 QC Sample: L1710924-01 Client ID: HA-M2-11(OW)						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992639-3 QC Sample: L1710020-02 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992671-3 QC Sample: L1709128-23 Client ID: DUP Sample						
Phenolics, Total	0.66	0.70	mg/l	6		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992820-3 QC Sample: L1710551-10 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG992870-3 QC Sample: L1710710-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.742	0.739	mg/l	0		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG993233-4 QC Sample: L1711028-06 Client ID: DUP Sample						
Chloride	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG993391-2 QC Sample: L1710742-01 Client ID: DUP Sample						
Solids, Total Suspended	630	650	mg/l	3		29

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1710924

Project Number: 128458-002

Report Date: 04/13/17

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1710924-01A	Vial HCl preserved	A	N/A	3.7	Y	Absent	8260-SIM(14),8260(14)
L1710924-01B	Vial HCl preserved	A	N/A	3.7	Y	Absent	8260-SIM(14),8260(14)
L1710924-01C	Vial HCl preserved	A	N/A	3.7	Y	Absent	8260-SIM(14),8260(14)
L1710924-01D	Vial Na2S2O3 preserved	A	N/A	3.7	Y	Absent	504(14)
L1710924-01E	Vial Na2S2O3 preserved	A	N/A	3.7	Y	Absent	504(14)
L1710924-01F	Vial unpreserved	A	N/A	3.7	Y	Absent	A2-ALCOHOL(14)
L1710924-01G	Plastic 250ml NaOH preserved	A	>12	3.7	Y	Absent	HOLD-WETCHEM(0),TCN-4500(14)
L1710924-01H	Plastic 250ml HNO3 preserved	A	<2	3.7	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),HARDU(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1710924-01I	Plastic 250ml HNO3 preserved	A	<2	3.7	Y	Absent	HOLD-METAL-DISSOLVED(180)
L1710924-01J	Plastic 500ml H2SO4 preserved	A	<2	3.7	Y	Absent	NH3-4500(28)
L1710924-01K	Plastic 950ml unpreserved	A	7	3.7	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1710924-01L	Plastic 950ml unpreserved	A	7	3.7	Y	Absent	TSS-2540(7)
L1710924-01M	Amber 950ml H2SO4 preserved	A	<2	3.7	Y	Absent	TPHENOL-420(28)
L1710924-01N	Amber 1000ml Na2S2O3	A	7	3.7	Y	Absent	PCB-608(7)
L1710924-01O	Amber 1000ml Na2S2O3	A	7	3.7	Y	Absent	PCB-608(7)
L1710924-01P	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1710924-01Q	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1710924-01R	Amber 1000ml HCl preserved	A	N/A	3.7	Y	Absent	TPH-1664(28)
L1710924-01S	Amber 1000ml HCl preserved	A	N/A	3.7	Y	Absent	TPH-1664(28)

\*Values in parentheses indicate holding time in days

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

## 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

**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.

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. 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

**Report Format:** Data Usability Report



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

#### Data Qualifiers

- 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.

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1710924  
**Report Date:** 04/13/17

## 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:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**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:** 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, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **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.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### 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.





## ANALYTICAL REPORT

Lab Number:	L1716347
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Heather Scranton
Phone:	(617) 886-7400
Project Name:	SEAPORT SQUARE BLOCK M
Project Number:	128458-002
Report Date:	05/25/17

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).

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



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1716347-01	RECEIVING WATERS-2017	WATER	145 SEAPORT BOULEVARD, BOSTON, MA	05/18/17 10:25	05/18/17

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

### 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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

**Case Narrative (continued)**

Sample Receipt

L1716347-01 (RECEIVING WATERS-2017): The sample was received above the appropriate pH for the Ammonia analysis. The laboratory added additional H<sub>2</sub>SO<sub>4</sub> to a pH <2.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/25/17

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

**SAMPLE RESULTS**

**Lab ID:** L1716347-01  
**Client ID:** RECEIVING WATERS-2017  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON,  
**Matrix:** Water

**Date Collected:** 05/18/17 10:25  
**Date Received:** 05/18/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
SALINITY	8.3		SU	2.0	--	1	-	05/23/17 16:21	121,2520B	AS
pH (H)	7.8		SU	-	NA	1	-	05/18/17 23:14	121,4500H+-B	AS
Nitrogen, Ammonia	0.092		mg/l	0.075	--	1	05/18/17 23:00	05/19/17 22:52	121,4500NH3-BH	AT



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

**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: WG1004979-1									
Nitrogen, Ammonia	ND	mg/l	0.075	--	1	05/18/17 23:00	05/19/17 22:38	121,4500NH3-BH	AT

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Project Number:** 128458-002

**Lab Number:** L1716347

**Report Date:** 05/25/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1004979-2								
Nitrogen, Ammonia	100		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1004981-1								
pH	99		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1006300-1								
SALINITY	90		-			-		

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>MSD Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>MSD Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Qual</b>	<b>RPD Limits</b>
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1004979-4 QC Sample: L1716306-01 Client ID: MS Sample												
Nitrogen, Ammonia	ND	4	3.94	98		-	-		80-120	-		20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1716347

Report Date: 05/25/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1004979-3 QC Sample: L1716306-01 Client ID: DUP Sample						
Nitrogen, Ammonia	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1004981-2 QC Sample: L1716333-01 Client ID: DUP Sample						
pH	6.9	7.0	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1006300-2 QC Sample: L1716347-01 Client ID: RECEIVING WATERS-2017						
SALINITY	8.3	8.4	SU	1		

**Project Name:** SEAPORT SQUARE BLOCK M**Project Number:** 128458-002**Lab Number:** L1716347**Report Date:** 05/25/17**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1716347-01A	Plastic 250ml H2SO4 preserved	A	<2	3.1	Y	Absent	NH3-4500(28)
L1716347-01B	Plastic 250ml unpreserved	A	7	3.1	Y	Absent	PH-4500(.01)
L1716347-01C	Plastic 250ml unpreserved	A	7	3.1	Y	Absent	SALINITY(28)

\*Values in parentheses indicate holding time in days

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

## 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.
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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

**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.

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. 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

**Report Format:** Data Usability Report



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

#### Data Qualifiers

- 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.

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1716347  
**Report Date:** 05/25/17

## REFERENCES

- 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

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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:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**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

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** 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, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **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.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### 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**

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





## ANALYTICAL REPORT

Lab Number:	L1722031
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Heather Scranton
Phone:	(617) 886-7400
Project Name:	SEAPORT SQUARE BLOCK M
Project Number:	128458-002
Report Date:	07/05/17

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).

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



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1722031-01	GWT-INF-062817	WATER	145 SEAPORT BOULEVARD, BOSTON MA	06/28/17 07:10	06/28/17
L1722031-02	GWT-EFF-062817	WATER	145 SEAPORT BOULEVARD, BOSTON MA	06/28/17 07:30	06/28/17

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

### 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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

### Case Narrative (continued)

#### Semivolatile Organics

The WG1018391-2 LCS recovery, associated with L1722031-01 and -02 (both submitted samples), is below the acceptance criteria for benzidine (6%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

#### Semivolatile Organics by SIM

The WG1018395-1 Method Blank, associated with L1722031-01 and -02 (both submitted samples), has concentrations above the reporting limits for Naphthalene, 2-Methylnaphthalene and 1-Methylnaphthalene. The samples were re-extracted and the method blank was non-detect for these target compounds. The results for only Naphthalene, 2-Methylnaphthalene and 1-Methylnaphthalene are reported from the re-extraction, along with the re-extract QC.

#### Nitrogen, Ammonia

The GWT-EFF-062817 (L1722031-02) result is greater than the GWT-INF-062817 (L1722031-01) result. The sample containers were verified as being labeled correctly by the laboratory.

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

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 07/05/17

# ORGANICS

# SEMIVOLATILES

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

**Lab ID:** L1722031-01  
**Client ID:** GWT-INF-062817  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON MA  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 06/30/17 04:56  
**Analyst:** SZ

**Date Collected:** 06/28/17 07:10  
**Date Received:** 06/28/17  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	ND		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
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

**Lab ID:** L1722031-01  
**Client ID:** GWT-INF-062817  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON MA

**Date Collected:** 06/28/17 07:10  
**Date Received:** 06/28/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	47		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	102		10-120
4-Terphenyl-d14	78		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

Lab ID: L1722031-01  
 Client ID: GWT-INF-062817  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON MA

Date Collected: 06/28/17 07:10  
 Date Received: 06/28/17  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 06/29/17 11:55

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 06/30/17 18:01  
 Analyst: KL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	3.8		ug/l	0.10	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	0.51		ug/l	0.10	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	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	0.12		ug/l	0.10	--	1
Anthracene	0.20		ug/l	0.10	--	1
Benzo(ghi)perylene	ND		ug/l	0.10	--	1
Fluorene	1.4		ug/l	0.10	--	1
Phenanthrene	1.4		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	0.32		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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		21-120
Phenol-d6	24		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	66		15-120
2,4,6-Tribromophenol	53		10-120
4-Terphenyl-d14	54		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

Lab ID: L1722031-01 RE  
 Client ID: GWT-INF-062817  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON MA  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 07/04/17 09:46  
 Analyst: KL

Date Collected: 06/28/17 07:10  
 Date Received: 06/28/17  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 07/03/17 15:43

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

Naphthalene	0.20		ug/l	0.10	--	1
1-Methylnaphthalene	0.10		ug/l	0.10	--	1
2-Methylnaphthalene	ND		ug/l	0.10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	63		15-120
4-Terphenyl-d14	52		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

**Lab ID:** L1722031-02  
**Client ID:** GWT-EFF-062817  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON MA  
  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 06/30/17 05:48  
**Analyst:** SZ

**Date Collected:** 06/28/17 07:30  
**Date Received:** 06/28/17  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	ND		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
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

**Lab ID:** L1722031-02  
**Client ID:** GWT-EFF-062817  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON MA

**Date Collected:** 06/28/17 07:30  
**Date Received:** 06/28/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	52		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	106		10-120
4-Terphenyl-d14	79		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

**Lab ID:** L1722031-02  
**Client ID:** GWT-EFF-062817  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON MA  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 06/30/17 18:28  
**Analyst:** KL

**Date Collected:** 06/28/17 07:30  
**Date Received:** 06/28/17  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	0.36		ug/l	0.10	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	0.41		ug/l	0.10	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Benzo(a)anthracene	0.10		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	0.13		ug/l	0.10	--	1
Phenanthrene	0.34		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	0.28		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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	55		10-120
4-Terphenyl-d14	59		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

Lab ID: L1722031-02 RE  
 Client ID: GWT-EFF-062817  
 Sample Location: 145 SEAPORT BOULEVARD, BOSTON MA  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 07/04/17 10:17  
 Analyst: KL

Date Collected: 06/28/17 07:30  
 Date Received: 06/28/17  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 07/03/17 15:43

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

Naphthalene	ND		ug/l	0.10	--	1
1-Methylnaphthalene	ND		ug/l	0.10	--	1
2-Methylnaphthalene	ND		ug/l	0.10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	53		15-120
4-Terphenyl-d14	45		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 06/30/17 00:33  
**Analyst:** SZ

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1018391-1					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 06/30/17 00:33  
**Analyst:** SZ

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1018391-1					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 06/30/17 00:33  
**Analyst:** SZ

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1018391-1					
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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 1,8270D  
 Analytical Date: 06/30/17 00:33  
 Analyst: SZ

Extraction Method: EPA 3510C  
 Extraction Date: 06/29/17 11:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1018391-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	91		15-120
2,4,6-Tribromophenol	117		10-120
4-Terphenyl-d14	96		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 06/30/17 16:14  
**Analyst:** KV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1018395-1					
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	0.30		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	0.11		ug/l	0.10	--
2-Methylnaphthalene	0.31		ug/l	0.10	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Method Blank Analysis  
 Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 06/30/17 16:14  
**Analyst:** KV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/29/17 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1018395-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	22		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	56		10-120
4-Terphenyl-d14	63		41-149

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 07/04/17 08:12  
**Analyst:** KL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 07/03/17 15:43

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1019488-1					
Naphthalene	ND		ug/l	0.10	--
1-Methylnaphthalene	ND		ug/l	0.10	--
2-Methylnaphthalene	ND		ug/l	0.10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	72		15-120
4-Terphenyl-d14	80		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1722031

Project Number: 128458-002

Report Date: 07/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1018391-2 WG1018391-3								
Acenaphthene	86		98		37-111	13		30
Benzidine	6	Q	12		10-75	65	Q	30
1,2,4-Trichlorobenzene	74		84		39-98	13		30
Hexachlorobenzene	92		102		40-140	10		30
Bis(2-chloroethyl)ether	70		81		40-140	15		30
2-Chloronaphthalene	81		92		40-140	13		30
1,2-Dichlorobenzene	70		81		40-140	15		30
1,3-Dichlorobenzene	70		80		40-140	13		30
1,4-Dichlorobenzene	70		78		36-97	11		30
3,3'-Dichlorobenzidine	69		73		40-140	6		30
2,4-Dinitrotoluene	114		128		48-143	12		30
2,6-Dinitrotoluene	100		111		40-140	10		30
Azobenzene	85		94		40-140	10		30
Fluoranthene	83		91		40-140	9		30
4-Chlorophenyl phenyl ether	86		99		40-140	14		30
4-Bromophenyl phenyl ether	88		101		40-140	14		30
Bis(2-chloroisopropyl)ether	75		86		40-140	14		30
Bis(2-chloroethoxy)methane	77		89		40-140	14		30
Hexachlorobutadiene	70		80		40-140	13		30
Hexachlorocyclopentadiene	71		83		40-140	16		30
Hexachloroethane	71		82		40-140	14		30
Isophorone	76		88		40-140	15		30
Naphthalene	73		85		40-140	15		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1722031

Project Number: 128458-002

Report Date: 07/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1018391-2 WG1018391-3								
Nitrobenzene	76		85		40-140	11		30
NDPA/DPA	90		101		40-140	12		30
n-Nitrosodi-n-propylamine	72		80		29-132	11		30
Bis(2-ethylhexyl)phthalate	86		93		40-140	8		30
Butyl benzyl phthalate	92		101		40-140	9		30
Di-n-butylphthalate	87		96		40-140	10		30
Di-n-octylphthalate	90		96		40-140	6		30
Diethyl phthalate	89		101		40-140	13		30
Dimethyl phthalate	83		91		40-140	9		30
Benzo(a)anthracene	76		83		40-140	9		30
Benzo(a)pyrene	80		85		40-140	6		30
Benzo(b)fluoranthene	78		81		40-140	4		30
Benzo(k)fluoranthene	81		85		40-140	5		30
Chrysene	77		83		40-140	8		30
Acenaphthylene	82		92		45-123	11		30
Anthracene	83		93		40-140	11		30
Benzo(ghi)perylene	80		85		40-140	6		30
Fluorene	90		102		40-140	13		30
Phenanthrene	82		89		40-140	8		30
Dibenzo(a,h)anthracene	80		85		40-140	6		30
Indeno(1,2,3-cd)pyrene	81		87		40-140	7		30
Pyrene	83		92		26-127	10		30
Biphenyl	81		90		40-140	11		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1722031

Project Number: 128458-002

Report Date: 07/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1018391-2 WG1018391-3								
Aniline	54		52		40-140	4		30
4-Chloroaniline	56		57		40-140	2		30
1-Methylnaphthalene	72		82		41-103	13		30
2-Nitroaniline	105		116		52-143	10		30
3-Nitroaniline	98		106		25-145	8		30
4-Nitroaniline	97		109		51-143	12		30
Dibenzofuran	89		100		40-140	12		30
2-Methylnaphthalene	77		87		40-140	12		30
n-Nitrosodimethylamine	45		48		22-74	6		30
2,4,6-Trichlorophenol	87		96		30-130	10		30
p-Chloro-m-cresol	81		89		23-97	9		30
2-Chlorophenol	74		82		27-123	10		30
2,4-Dichlorophenol	81		94		30-130	15		30
2,4-Dimethylphenol	79		87		30-130	10		30
2-Nitrophenol	96		109		30-130	13		30
4-Nitrophenol	56		60		10-80	7		30
2,4-Dinitrophenol	113		123		20-130	8		30
4,6-Dinitro-o-cresol	110		123		20-164	11		30
Pentachlorophenol	89		101		9-103	13		30
Phenol	37		39		12-110	5		30
2-Methylphenol	70		78		30-130	11		30
3-Methylphenol/4-Methylphenol	65		73		30-130	12		30
2,4,5-Trichlorophenol	88		99		30-130	12		30

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Project Number:** 128458-002

**Lab Number:** L1722031

**Report Date:** 07/05/17

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1018391-2 WG1018391-3								
Benzoic Acid	33		29		10-164	13		30
Benzyl Alcohol	67		73		26-116	9		30
Carbazole	83		91		55-144	9		30
Pyridine	24		21		10-66	13		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
2-Fluorophenol	46		52		21-120
Phenol-d6	32		35		10-120
Nitrobenzene-d5	74		85		23-120
2-Fluorobiphenyl	71		81		15-120
2,4,6-Tribromophenol	92		102		10-120
4-Terphenyl-d14	72		81		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1722031

Project Number: 128458-002

Report Date: 07/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1018395-2 WG1018395-3								
Acenaphthene	66		62		37-111	6		40
2-Chloronaphthalene	71		69		40-140	3		40
Fluoranthene	69		66		40-140	4		40
Hexachlorobutadiene	64		61		40-140	5		40
Naphthalene	65		63		40-140	3		40
Benzo(a)anthracene	73		67		40-140	9		40
Benzo(a)pyrene	73		68		40-140	7		40
Benzo(b)fluoranthene	72		66		40-140	9		40
Benzo(k)fluoranthene	68		64		40-140	6		40
Chrysene	66		61		40-140	8		40
Acenaphthylene	77		74		40-140	4		40
Anthracene	70		66		40-140	6		40
Benzo(ghi)perylene	65		60		40-140	8		40
Fluorene	71		67		40-140	6		40
Phenanthrene	63		59		40-140	7		40
Dibenzo(a,h)anthracene	67		62		40-140	8		40
Indeno(1,2,3-cd)pyrene	72		66		40-140	9		40
Pyrene	67		65		26-127	3		40
1-Methylnaphthalene	68		66		40-140	3		40
2-Methylnaphthalene	69		67		40-140	3		40
Pentachlorophenol	61		57		9-103	7		40
Hexachlorobenzene	54		50		40-140	8		40
Hexachloroethane	59		60		40-140	2		40

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Lab Number:** L1722031

**Project Number:** 128458-002

**Report Date:** 07/05/17

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1018395-2 WG1018395-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	40		42		21-120
Phenol-d6	26		28		10-120
Nitrobenzene-d5	67		66		23-120
2-Fluorobiphenyl	71		68		15-120
2,4,6-Tribromophenol	55		51		10-120
4-Terphenyl-d14	62		60		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1722031

Report Date: 07/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1019488-2 WG1019488-3								
Naphthalene	58		60		40-140	3		40
1-Methylnaphthalene	60		63		40-140	5		40
2-Methylnaphthalene	60		62		40-140	3		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	63		64		23-120
2-Fluorobiphenyl	66		66		15-120
4-Terphenyl-d14	72		74		41-149

## METALS

Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1722031

Project Number: 128458-002

Report Date: 07/05/17

## SAMPLE RESULTS

Lab ID: L1722031-01

Date Collected: 06/28/17 07:10

Client ID: GWT-INF-062817

Date Received: 06/28/17

Sample Location: 145 SEAPORT BOULEVARD, BOSTON

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Antimony, Total	0.01183		mg/l	0.00400	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Arsenic, Total	0.01695		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Cadmium, Total	0.00053		mg/l	0.00020	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Chromium, Total	0.04514		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Copper, Total	0.05772		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Iron, Total	6.72		mg/l	0.050	--	1	06/30/17 10:35	06/30/17 19:13	EPA 3005A	19,200.7	AB
Lead, Total	0.06771		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Mercury, Total	0.00064		mg/l	0.00020	--	1	06/30/17 10:48	06/30/17 17:39	EPA 245.1	3,245.1	EA
Nickel, Total	0.01462		mg/l	0.00200	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Selenium, Total	0.01923		mg/l	0.00500	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Silver, Total	ND		mg/l	0.00040	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM
Zinc, Total	0.1159		mg/l	0.01000	--	1	06/30/17 10:35	07/03/17 18:49	EPA 3005A	3,200.8	BM



Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1722031

Project Number: 128458-002

Report Date: 07/05/17

## SAMPLE RESULTS

Lab ID: L1722031-02

Date Collected: 06/28/17 07:30

Client ID: GWT-EFF-062817

Date Received: 06/28/17

Sample Location: 145 SEAPORT BOULEVARD, BOSTON

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Antimony, Total	0.01448		mg/l	0.00400	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Arsenic, Total	0.01319		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Cadmium, Total	0.00041		mg/l	0.00020	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Chromium, Total	0.01026		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Copper, Total	0.02702		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Iron, Total	2.38		mg/l	0.050	--	1	06/30/17 10:35	06/30/17 19:17	EPA 3005A	19,200.7	AB
Lead, Total	0.02684		mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Mercury, Total	0.00035		mg/l	0.00020	--	1	06/30/17 10:48	06/30/17 17:44	EPA 245.1	3,245.1	EA
Nickel, Total	0.00988		mg/l	0.00200	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Selenium, Total	0.02622		mg/l	0.00500	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Silver, Total	ND		mg/l	0.00040	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM
Zinc, Total	0.05568		mg/l	0.01000	--	1	06/30/17 10:35	07/03/17 18:53	EPA 3005A	3,200.8	BM



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

### 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: WG1018766-1									
Antimony, Total	ND	mg/l	0.00400	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Arsenic, Total	ND	mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Cadmium, Total	ND	mg/l	0.00020	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Chromium, Total	ND	mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Copper, Total	ND	mg/l	0.00100	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Lead, Total	ND	mg/l	0.001	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Nickel, Total	ND	mg/l	0.00200	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Selenium, Total	ND	mg/l	0.00500	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Silver, Total	ND	mg/l	0.00040	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM
Zinc, Total	ND	mg/l	0.0100	--	1	06/30/17 10:35	07/03/17 13:38	3,200.8	BM

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1018767-1									
Iron, Total	ND	mg/l	0.050	--	1	06/30/17 10:35	06/30/17 16:43	19,200.7	AB

#### 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: WG1018775-1									
Mercury, Total	ND	mg/l	0.00020	--	1	06/30/17 10:48	06/30/17 17:23	3,245.1	EA

#### Prep Information

Digestion Method: EPA 245.1



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Project Number:** 128458-002

**Lab Number:** L1722031

**Report Date:** 07/05/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1018766-2								
Antimony, Total	99		-		85-115	-		
Arsenic, Total	99		-		85-115	-		
Cadmium, Total	112		-		85-115	-		
Chromium, Total	102		-		85-115	-		
Copper, Total	101		-		85-115	-		
Lead, Total	107		-		85-115	-		
Nickel, Total	102		-		85-115	-		
Selenium, Total	105		-		85-115	-		
Silver, Total	100		-		85-115	-		
Zinc, Total	108		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1018767-2								
Iron, Total	108		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1018775-2								
Mercury, Total	114		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

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: WG1018766-3    QC Sample: L1721673-01    Client ID: MS Sample												
Antimony, Total	ND	0.5	0.534	107		-	-		70-130	-		20
Arsenic, Total	ND	0.12	0.124	103		-	-		70-130	-		20
Cadmium, Total	ND	0.051	0.05640	110		-	-		70-130	-		20
Chromium, Total	ND	0.2	0.210	105		-	-		70-130	-		20
Copper, Total	0.002	0.25	0.261	104		-	-		70-130	-		20
Lead, Total	ND	0.51	0.554	109		-	-		70-130	-		20
Nickel, Total	ND	0.5	0.514	103		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.139	116		-	-		70-130	-		20
Silver, Total	ND	0.05	0.0493	99		-	-		70-130	-		20
Zinc, Total	0.053	0.5	0.621	114		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02    QC Batch ID: WG1018767-3    QC Sample: L1721673-01    Client ID: MS Sample												
Iron, Total	ND	1	1.02	102		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02    QC Batch ID: WG1018767-7    QC Sample: L1721777-01    Client ID: MS Sample												
Iron, Total	0.239	1	1.23	99		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02    QC Batch ID: WG1018775-3    QC Sample: L1721621-01    Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00549	110		-	-		70-130	-		20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1722031

Report Date: 07/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1018766-4 QC Sample: L1721673-01 Client ID: DUP Sample						
Lead, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1018775-4 QC Sample: L1721621-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

**Lab ID:** L1722031-01  
**Client ID:** GWT-INF-062817  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON  
**Matrix:** Water

**Date Collected:** 06/28/17 07:10  
**Date Received:** 06/28/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	170		mg/l	10	NA	2	-	06/30/17 05:55	121,2540D	VB
Cyanide, Total	0.008		mg/l	0.005	--	1	06/29/17 13:00	06/29/17 15:35	121,4500CN-CE	LK
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/29/17 02:25	121,4500CL-D	KA
pH (H)	7.6		SU	-	NA	1	-	06/29/17 00:02	121,4500H+-B	AS
Nitrogen, Ammonia	1.69		mg/l	0.375	--	5	06/30/17 16:42	06/30/17 21:17	121,4500NH3-BH	AT
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	1090		mg/l	25.0	--	50	-	07/02/17 22:02	44,300.0	JC



**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

**SAMPLE RESULTS**

**Lab ID:** L1722031-02  
**Client ID:** GWT-EFF-062817  
**Sample Location:** 145 SEAPORT BOULEVARD, BOSTON  
**Matrix:** Water

**Date Collected:** 06/28/17 07:30  
**Date Received:** 06/28/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	110		mg/l	5.0	NA	1	-	06/30/17 05:55	121,2540D	VB
Cyanide, Total	0.009		mg/l	0.005	--	1	06/29/17 13:00	06/29/17 15:36	121,4500CN-CE	LK
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/29/17 02:25	121,4500CL-D	KA
pH (H)	7.8		SU	-	NA	1	-	06/29/17 00:02	121,4500H+-B	AS
Nitrogen, Ammonia	1.79		mg/l	0.075	--	1	06/30/17 16:42	06/30/17 21:18	121,4500NH3-BH	AT
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	1060		mg/l	25.0	--	50	-	07/02/17 22:14	44,300.0	JC



Project Name: SEAPORT SQUARE BLOCK M

Lab Number: L1722031

Project Number: 128458-002

Report Date: 07/05/17

**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): 01-02 Batch: WG1018175-1									
Chlorine, Total Residual	ND	mg/l	0.02	--	1	-	06/29/17 02:25	121,4500CL-D	KA
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1018398-1									
Cyanide, Total	ND	mg/l	0.005	--	1	06/29/17 13:00	06/29/17 15:24	121,4500CN-CE	LK
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1018664-1									
Solids, Total Suspended	ND	mg/l	5.0	NA	1	-	06/30/17 05:55	121,2540D	VB
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1018908-1									
Nitrogen, Ammonia	ND	mg/l	0.075	--	1	06/30/17 16:42	06/30/17 21:06	121,4500NH3-BH	AT
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-02 Batch: WG1019267-1									
Chloride	ND	mg/l	0.500	--	1	-	07/02/17 16:13	44,300.0	JC

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M

**Project Number:** 128458-002

**Lab Number:** L1722031

**Report Date:** 07/05/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1018134-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1018175-2								
Chlorine, Total Residual	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1018398-2								
Cyanide, Total	107		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1018908-2								
Nitrogen, Ammonia	101		-		80-120	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 Batch: WG1019267-2								
Chloride	98		-		90-110	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018175-4 QC Sample: L1722055-03 Client ID: MS Sample												
Chlorine, Total Residual	ND	0.248	0.25	101	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018398-4 QC Sample: L1722031-02 Client ID: GWT-EFF-062817												
Cyanide, Total	0.009	0.2	0.205	98	-	-	-	-	90-110	-	-	30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018908-4 QC Sample: L1721874-02 Client ID: MS Sample												
Nitrogen, Ammonia	ND	4	3.96	99	-	-	-	-	80-120	-	-	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1019267-3 QC Sample: L1722298-02 Client ID: MS Sample												
Chloride	ND	4	3.88	96	-	-	-	-	90-110	-	-	18

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE BLOCK M

Project Number: 128458-002

Lab Number: L1722031

Report Date: 07/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018134-2 QC Sample: L1721988-01 Client ID: DUP Sample						
pH	7.8	7.6	SU	3		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018175-3 QC Sample: L1722031-01 Client ID: GWT-INF-062817						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018398-3 QC Sample: L1722031-01 Client ID: GWT-INF-062817						
Cyanide, Total	0.008	0.008	mg/l	1		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018664-2 QC Sample: L1722031-01 Client ID: GWT-INF-062817						
Solids, Total Suspended	170	170	mg/l	0		29
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018908-3 QC Sample: L1721874-02 Client ID: DUP Sample						
Nitrogen, Ammonia	ND	ND	mg/l	NC		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1019267-4 QC Sample: L1722298-02 Client ID: DUP Sample						
Chloride	ND	ND	mg/l	NC		18

**Project Name:** SEAPORT SQUARE BLOCK M**Lab Number:** L1722031**Project Number:** 128458-002**Report Date:** 07/05/17**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(*)
L1722031-01A	Vial HCl preserved	A	NA		3.2	Y	Absent		HOLD-8260(14)
L1722031-01B	Vial HCl preserved	A	NA		3.2	Y	Absent		HOLD-8260(14)
L1722031-01C	Vial HCl preserved	A	NA		3.2	Y	Absent		HOLD-8260(14)
L1722031-01D	Plastic 120ml unpreserved	A	7	7	3.2	Y	Absent		CL-300(28),PH-4500(.01)
L1722031-01E	Plastic 250ml NaOH preserved	A	>12	>12	3.2	Y	Absent		TCN-4500(14)
L1722031-01F	Plastic 250ml HNO3 preserved	A	<2	<2	3.2	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)
L1722031-01G	Plastic 250ml HNO3 preserved	A	<2	<2	3.2	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)
L1722031-01H	Plastic 500ml unpreserved	A	7	7	3.2	Y	Absent		TRC-4500(1)
L1722031-01J	Plastic 950ml unpreserved	A	7	7	3.2	Y	Absent		TSS-2540(7)
L1722031-01K	Plastic 500ml H2SO4 preserved	A	<2	<2	3.2	Y	Absent		NH3-4500(28)
L1722031-01L	Amber 1000ml unpreserved	A	7	7	3.2	Y	Absent		8270TCL(7),8270TCL-SIM(7)
L1722031-01M	Amber 1000ml unpreserved	A	7	7	3.2	Y	Absent		8270TCL(7),8270TCL-SIM(7)
L1722031-02A	Vial HCl preserved	A	NA		3.2	Y	Absent		HOLD-8260(14)
L1722031-02B	Vial HCl preserved	A	NA		3.2	Y	Absent		HOLD-8260(14)
L1722031-02C	Vial HCl preserved	A	NA		3.2	Y	Absent		HOLD-8260(14)
L1722031-02D	Plastic 120ml unpreserved	A	7	7	3.2	Y	Absent		CL-300(28),PH-4500(.01)
L1722031-02E	Plastic 250ml NaOH preserved	A	>12	>12	3.2	Y	Absent		TCN-4500(14)

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Serial\_No:**07051718:33  
**Lab Number:** L1722031  
**Report Date:** 07/05/17

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1722031-02F	Plastic 250ml HNO3 preserved	A	<2	<2	3.2	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)
L1722031-02G	Plastic 250ml HNO3 preserved	A	<2	<2	3.2	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)
L1722031-02H	Plastic 500ml unpreserved	A	7	7	3.2	Y	Absent		TRC-4500(1)
L1722031-02J	Plastic 950ml unpreserved	A	7	7	3.2	Y	Absent		TSS-2540(7)
L1722031-02K	Plastic 500ml H2SO4 preserved	A	<2	<2	3.2	Y	Absent		NH3-4500(28)
L1722031-02L	Amber 1000ml unpreserved	A	7	7	3.2	Y	Absent		8270TCL(7),8270TCL-SIM(7)
L1722031-02M	Amber 1000ml unpreserved	A	7	7	3.2	Y	Absent		8270TCL(7),8270TCL-SIM(7)

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

## 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:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

#### 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.

**Project Name:** SEAPORT SQUARE BLOCK M  
**Project Number:** 128458-002

**Lab Number:** L1722031  
**Report Date:** 07/05/17

## 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.
- 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.
- 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:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**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:** 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, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **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.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### 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.

<b>CHAIN OF CUSTODY</b> Westborough, MA 01581    8 Walkup Dr.    TEL: 508-898-0330 Mansfield, MA 02048    320 Forbes Blvd    TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Brewer, ME 04412    Portsmouth, NH 03801 Mahwah, NJ 07430 Albany, NY 12205 Tonawanda, NY 14150    Holmes, PA 19043		Page 1 of 1		Date Rec'd in Lab <span style="font-size: 2em; color: blue;">06/28/17</span>				ALPHA Job # <span style="font-size: 2em; color: blue;">L1722031</span>																																																											
		Project Information Project Name: Seaport Square Block M Project Location: 145 Seaport Boulevard, Boston MA Project # 128458-002 (Use Project name as Project <input type="checkbox"/> )		Deliverables <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> EQUS (1 File) <input checked="" type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other:		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #		Regulatory Requirements (Program/Criteria) MA NPDES RGP Total RGP Metals = Hg.Ag.As.Cd.Cr.Cu.Ni.Pb.Sb.Se.Zn.Fe Note: Select State from menu & identify criteria.				Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																									
H&A Client: Boston Seaport M1&2 Land, LLC H&A Address: 465 Medford St Boston, MA 02129-1400 H&A Phone: 617-886-7400 H&A Fax: H&A Email: Kalepidis,Ljuozelskis,Kchatterton		Project Manager: H. Scranton ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: (only if pre approved) <input type="checkbox"/> # of Days: 5 Day		ANALYSIS				Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles																																																											
These samples have been previously analyzed by Alpha <input type="checkbox"/>		Other project specific requirements/comments: **Field Filtered Analyze using the EPA 2017 RGP Approved Testing Methods Please specify Metals or TAL.		<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">TSS-2540</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs 8260 (on HOLD)</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">pH</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOCs by GC/MS-SIM</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOCs by GC/MS</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">Ammonia</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Residual Chlorine</th> <th style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Cyanide</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </tbody> </table>				TSS-2540	VOCs 8260 (on HOLD)			pH	Chloride	Total Metals	SVOCs by GC/MS-SIM	SVOCs by GC/MS	Ammonia	Total Residual Chlorine	Total Cyanide																					X	X	X	X	X	X	X	X	X	X											X	X	X	X	X	X	X	X	X	X
TSS-2540	VOCs 8260 (on HOLD)	pH	Chloride	Total Metals	SVOCs by GC/MS-SIM	SVOCs by GC/MS	Ammonia	Total Residual Chlorine	Total Cyanide																																																												
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ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date    Time		Sample Matrix		Sampler's Initials																																																													
		<del>INF- GWT-INF-062817</del>		6/28/17 710		AQ		RB																																																													
		<del>EFF- GWT-EFF-062817</del>		6/28/17 730		AQ		RB																																																													
		COC edits by Gina Hall AAL																																																																			
		Metals are Total (not Dissolved/Not FF)																																																																			
		-01 ID is GWT-INF-062817																																																																			
		-02 ID is GWT-EFF-062817																																																																			
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub>		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative																																																													
		Relinquished By: 		Date/Time 6/28/17		Received By: 		Date/Time 6/28/17 1333																																																													
		Relinquished By: 		Date/Time 6/28/17 1848		Received By: 		Date/Time 6/28/17 1848																																																													
Document ID: 20455 Rev 1 (1/28/2016)												Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. Alpha Analytical's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement# 2015-18-Alpha Analytical by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Alpha Analytical.																																																									



**APPENDIX C**

**Contractor's Dewatering Submittal**



## Dewatering Plan

### **Installation Procedure:**

1. Offload dewatering tank to appropriate location.
2. Install 6" PVC connection to discharge location.
3. Install (3)-SAE-TC testing ports and flow meter online of the discharge pipe.
4. Connect pump to dewatering tank with a flexible hose and place in area of excavation. The pump will be placed within a perforated PVC pipe section surrounded by 1-1/2" stone in order to minimize silt.

\*Note: Dewatering system components will be located after coordination with JMA Superintendent

### **O & M Relative to Excavation Sequence, Foundation Construction, and Backfilling:**

1. Planned discharge into City of Boston System will not commence without seven (7) days advance notice to the Engineer. The Engineer must approve prior to any discharge commencing.
2. Dewater such that the water level is maintained a minimum of 2 ft below the excavation and backfill subgrade.
3. The subgrade is to remain stable at all times during the excavation and dewatering.
4. The pump, perforated PVC section, and stone will be maintained below the lowest point of excavation and highest point of backfill at all times.
5. When decommissioning sump pits, a new sump pit in a more desirable location will be prepared prior to removing the pump from the sump pit being abandoned. This will assure continuous dewatering is maintained. Upon abandoning the undesirable sump pit, all the 1.5" stone, filter fabric, PVC, and any other debris in the area will be removed leaving only subgrade material. The pit will be backfilled so that there are no unnecessary pits in the subgrade.
6. Backup equipment-Additional pumps, PVC pipe, flowmeters, and testing ports will be available as needed.
7. The dewatering system will be continuously operational as necessary to keep the work area in the dry. This includes the Cold Water Recordall Turbo 450 Meter continuously recording flow rate and volume.
8. Silt treatment will be performed using appropriate bag filters, should the sedimentation tank not remove the required total suspended solids
9. A Daily Flow Log will be kept by the operator and submitted to the Engineer on a weekly basis (See appendix).
10. A Sedimentation Basin Log will be kept by the operator and submitted to the Engineer on a weekly basis. (See appendix)

### **Schedule for Cleaning Sedimentation Tank:**

1. When sediment has reached a depth of 1' within the tank, the tank is to be drained and the sediment is removed using a Vac truck. Sediment to be disposed at a legal disposal facility.
2. Bag filters will be cleaned regularly to assure proper silt filtering. Additional bag filters will be onsite so that the filtering stays continuous while other filters are being cleaned.  
Bag filters will be of polypropylene felt material with a thermally welded bag. The housings will be Stainless Steel, ASME Code.  
(316 SS Construction, BUNA-N O-ring, RF 150lb ANSI flanged connections)

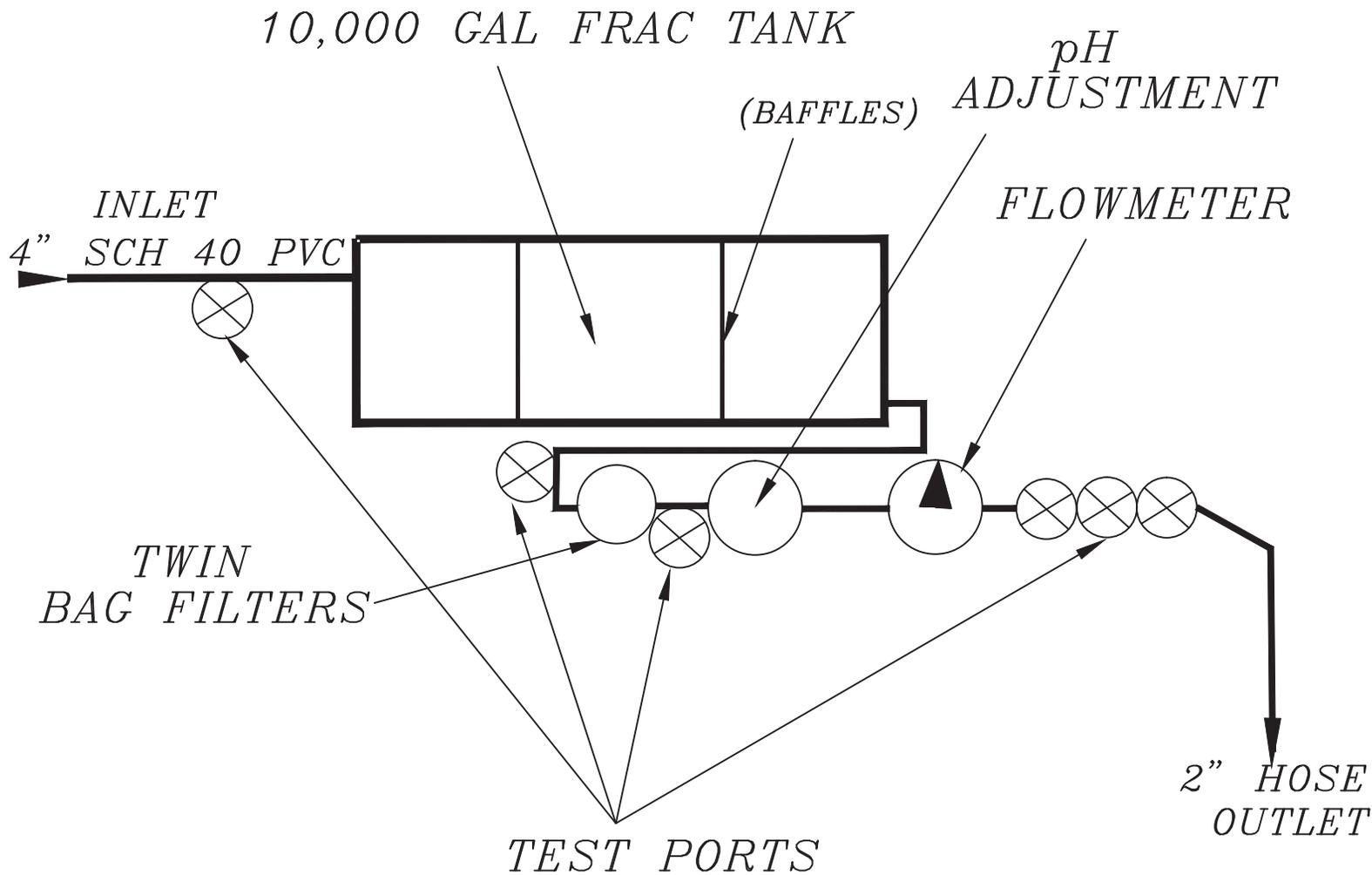
This routine maintenance of changing bag filters and cleaning the sedimentation tank will assure that suspended solids in the dewatering effluent will be minimized.

### **General Conformance**

- All dewatering shall be conducted in accordance with the MWRA and/or NPDES permit, depending on local authority
- Advance Notice shall be provided as required by the specifications prior to commencing discharge of effluent to the city system.

### **pH Adjustment System**

- Attached herein are the components to the pH adjustment system, which is a requirement in the dewatering permit.



## CONSTRUCTION NOTES

1. ADDITIONAL SUMP LOCATIONS OR TRENCHES LEADING TO THE SUMP PITS MAY BE REQUIRED TO ADEQUATELY DEWATER THE TRENCH
2. COORDINATE LOCATION OF WEIR TANK WITH JMA SUPERINTENDENT

Plan Title:

DEWATERING  
SYSTEM  
SCHEMATIC

Project Title:

SOUTH BOSTON  
MASSACHUSETTS

Revisions:


Prepared For:

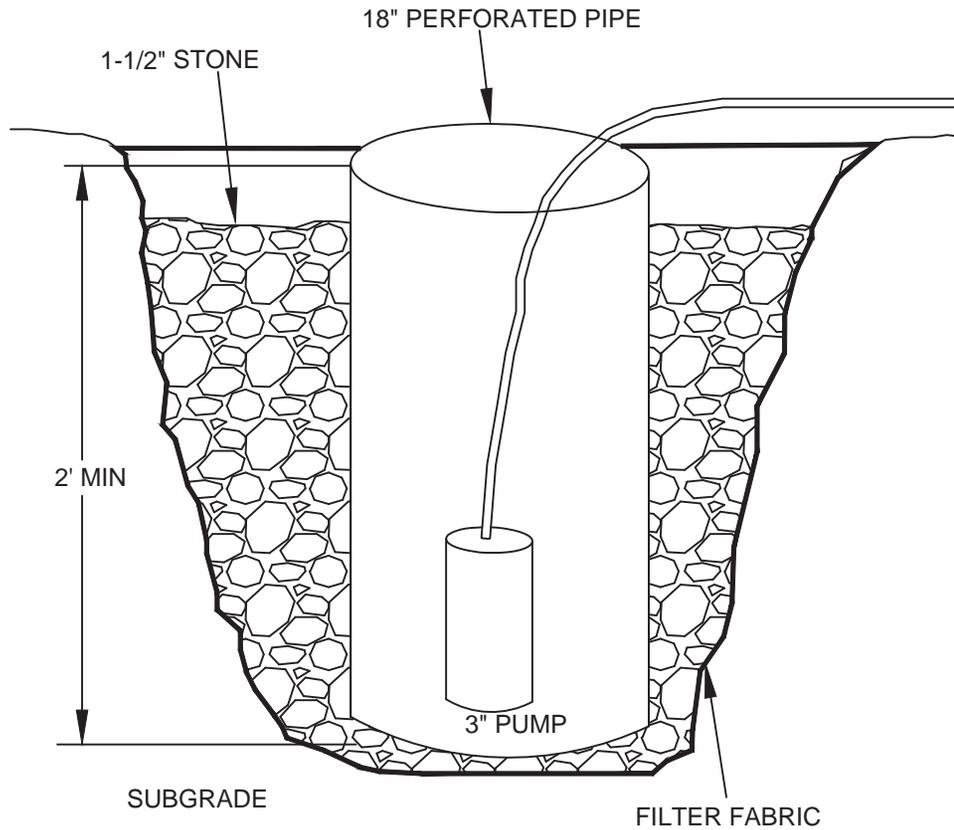


J. Derenzo Company  
338 Howard Street  
Brockton, Massachusetts 02302  
Ph. (508) 427 6441 Fax. (508) 427 6488

3.7.14	Drawing No.
Project Mgr.: P.B.	1 OF 1
Superintendent: J.F.	
Survey:	
Drawn: R.L.	
Job No.:	
Last Rev.:	

# CONSTRUCTION NOTES

1. ADDITIONAL SUMP LOCATIONS OR TRENCHES LEADING TO THE SUMP PITS MAY BE REQUIRED TO ADEQUATELY DEWATER THE TRENCH
2. COORDINATE LOCATION OF WEIR TANK WITH JMA SUPERINTENDENT .



(3" PUMP/SUMP DETAIL)

Plan Title:

DEWATERING  
SYSTEM  
DETAIL

Project Title:

SOUTH BOSTON  
MASSACHUSETTS

Revisions:


Prepared For:



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338 Howard Street  
Brockton, Massachusetts 02302  
Ph. (508) 427 6441 Fax. (508) 427 6488

3.7.14	Drawing No.
Project Mgr.: P.B.	1 OF 1
Superintendent: J.F.	
Survey:	
Drawn: R.L.	
Job No.:	
Last Rev.:	



## Mirafi<sup>®</sup> 140N

Mirafi<sup>®</sup> 140N is a needlepunched nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi<sup>®</sup> 140N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids. Mirafi<sup>®</sup> 140N meets Aashto M288-06 Class 3 for elongation > 50%.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	120 (534)	120 (534)
Grab Tensile Elongation	ASTM D4632	%	50	50
Trapezoid Tear Strength	ASTM D4533	lbs (N)	50 (223)	50 (223)
CBR Puncture Strength	ASTM D6241	lbs (N)	310 (1380)	
Apparent Opening Size (AOS) <sup>1</sup>	ASTM D4751	U.S. Sieve (mm)	70 (0.212)	
Permittivity	ASTM D4491	sec <sup>-1</sup>	1.7	
Flow Rate	ASTM D4491	gal/min/ft <sup>2</sup> (l/min/m <sup>2</sup> )	135 (5500)	
UV Resistance (at 500 hours)	ASTM D4355	% strength retained	70	

<sup>1</sup> ASTM D4751: AOS is a Maximum Opening Diameter Value

Physical Properties	Unit	Typical Value	
Roll Dimensions (width x length)	ft (m)	12.5 x 360 (3.8 x 110)	15 x 360 (4.5 x 110)
Roll Area	yd <sup>2</sup> (m <sup>2</sup> )	500 (418)	600 (502)
Estimated Roll Weight	lb (kg)	133 (60)	160 (72)

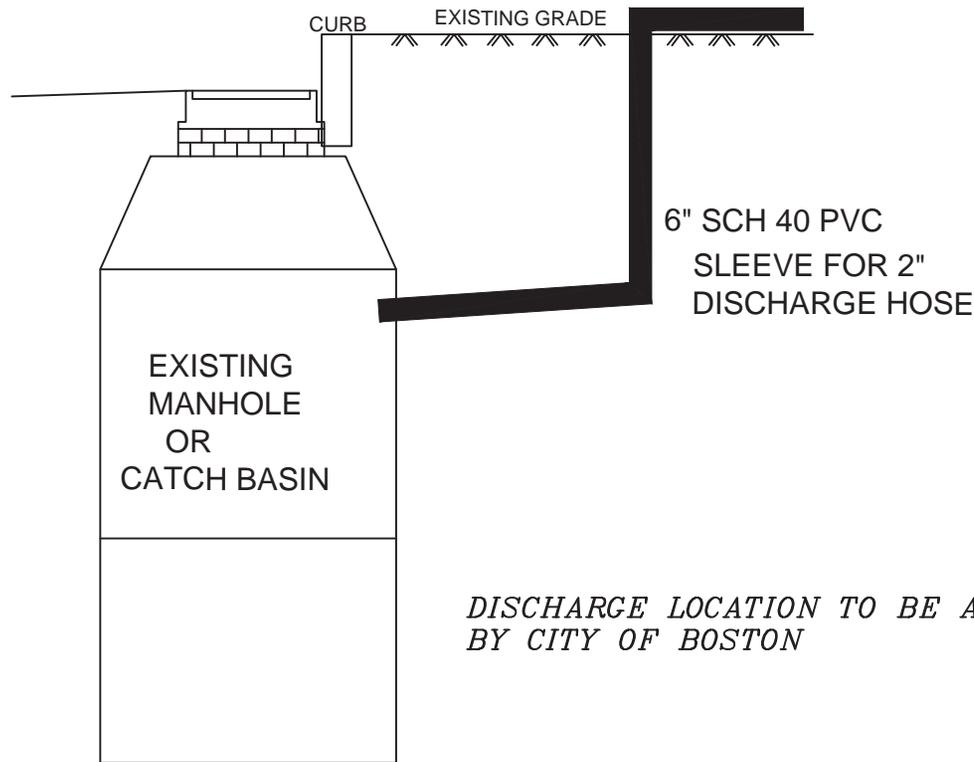
**Disclaimer:** TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

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# CONSTRUCTION NOTES

1. ADDITIONAL SUMP LOCATIONS OR TRENCHES LEADING TO THE SUMP PITS MAY BE REQUIRED TO ADEQUATELY DEWATER THE TRENCH
2. COORDINATE LOCATION OF WEIR TANK WITH JMA SUPERINTENDENT



*DISCHARGE LOCATION TO BE APPROVED  
BY CITY OF BOSTON*

## *DISCHARGE POINT TIE-IN DETAIL*

Plan Title:

DEWATERING  
SYSTEM  
DETAIL

Project Title:

SOUTH BOSTON  
MASSACHUSETTS

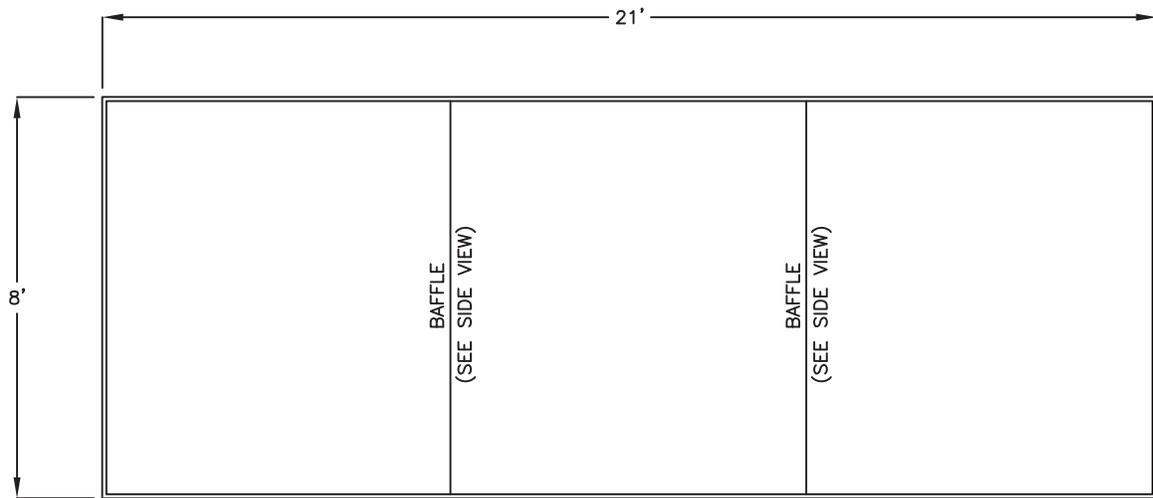
Revisions:

Prepared For:

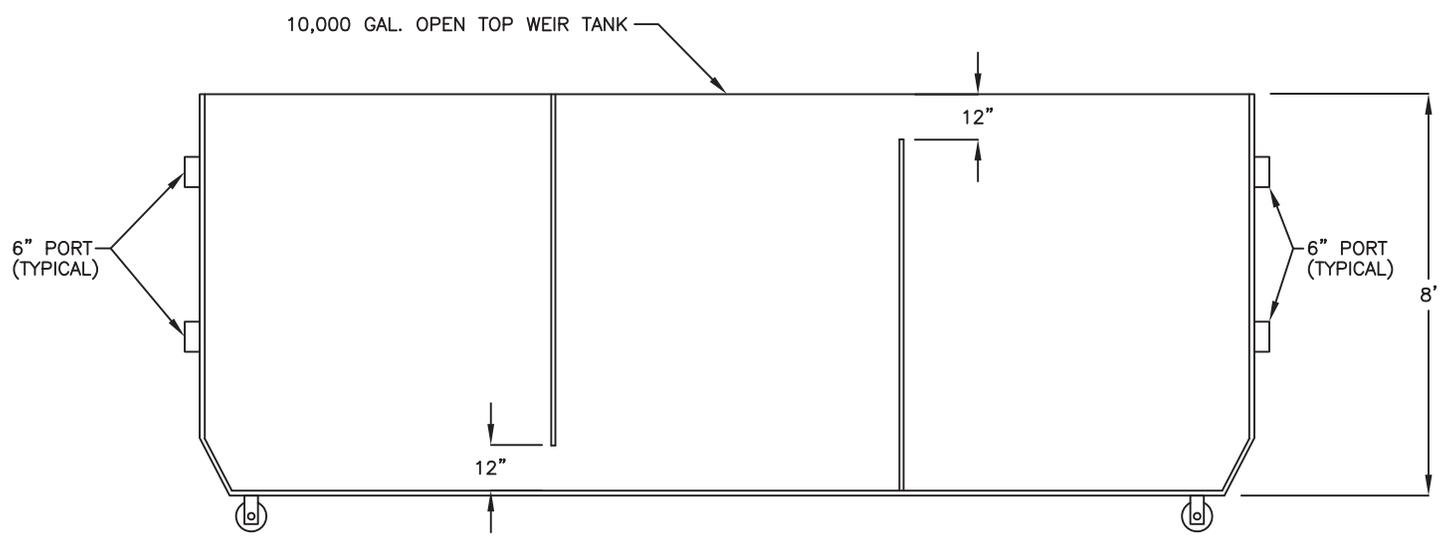


J. Derenzo Company  
338 Howard Street  
Brockton, Massachusetts 02302  
Ph. (508) 427 6441 Fax. (508) 427 6488

3.7.14	Drawing No.
Project Mgr.: P.B.	1 OF 1
Superintendent: J.F.	
Survey:	
Drawn: R.L.	
Job No.:	
Last Rev.:	



TOP VIEW  
NOT TO SCALE



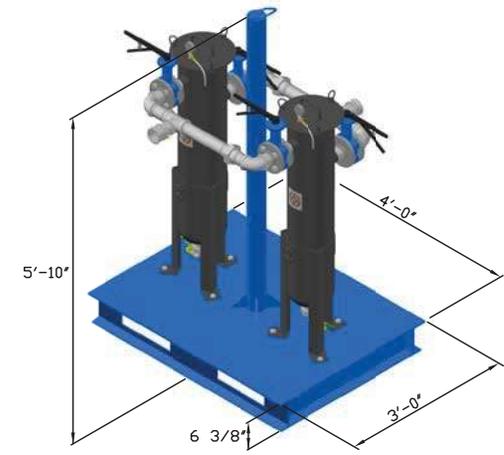
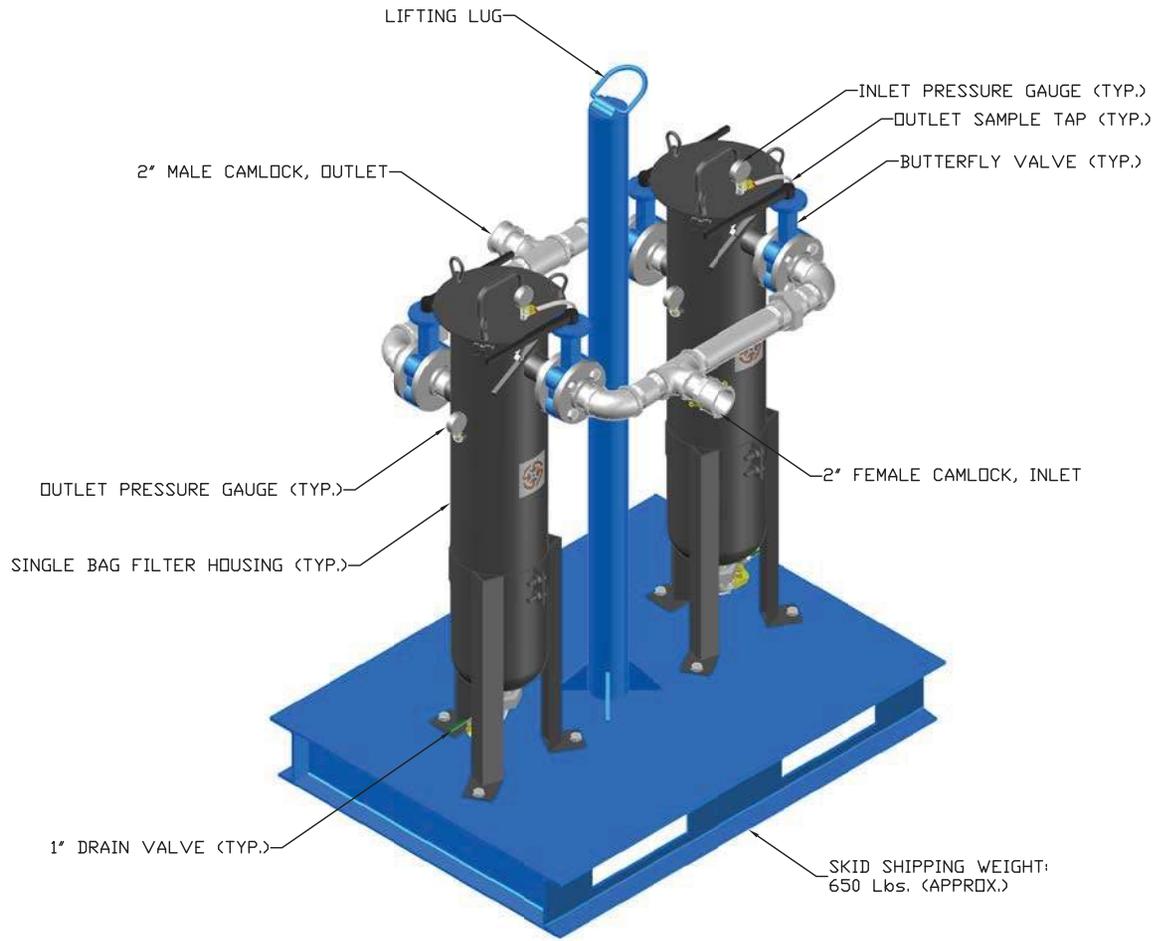
SIDE VIEW  
NOT TO SCALE



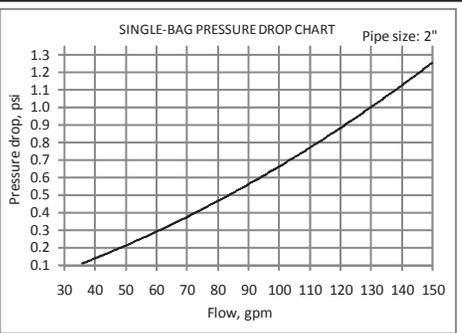
**LOCKWOOD REMEDIATION TECHNOLOGIES LLC**  
 127 HARTWELL STREET, SUITE 3  
 WEST BOYLSTON, MA 01583  
 TEL.: 774.450.7177 FAX: 888.835.0617  
 www.lrt-llc.net

*OPEN TOP  
 10,000 GALLON WEIR TANK*

SCALE: NOT TO SCALE	DR. BY: K. HAZEL
DATE: 6/20/11	JOB NO.:
CLIENT:	FIGURE 1
SITE:	



NOTE: THIS DRAWING DEPICTS A "TYPICAL" SKID. ACTUAL DETAILS AND DIMENSIONS MAY VARY.

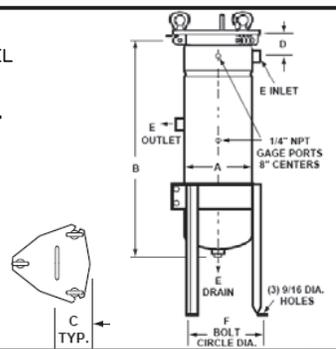


**SINGLE BAG FILTER SPECIFICATIONS**

- CONSTRUCTION: CARBON STEEL STANDARD
- HOUSING STYLE: STANDARD
- NUMBER OF BASKETS: 1
- STRAINING FILTERING AREA: 26.4 SQR. FT.
- INLET/OUTLET SIZE: 2"
- DRAIN SIZE (1x): 2"
- NOMINAL FLOW RATE: 100 GPM
- STANDARD PRESSURE: 125 PSI
- WEIGHT (PER DRY UNIT): 70 Lbs.

**BASIC DIMENSIONS**

MODEL NUMBER & A: 8 (8.6")  
 LEG BOLT CIRCLE F:  $\phi$ 12.0"  
 B: 35.9" C: 6.0"  
 D: 3.5" E: 2.0"



C	ADDED SKID WEIGHT	02/18/09
NO.	REVISIONS	DATE

<b>DUPLEX SINGLE BAG FILTER SKID STANDARD EQUIPMENT SPECIFICATION</b>		
SCALE: NTS	APPROVED BY: JB	DRAWN BY: AAV
DATE: 02/18/09		

 <b>GROUND/WATER TREATMENT &amp; TECHNOLOGY</b> P.O. BOX 1174 DENVER, NJ 07834		
THIS DRAWING IS THE PROPERTY OF GROUND/WATER TREATMENT & TECHNOLOGY, INC		
DWG SIZE: A	SHEET: 1 OF 1	DRAWING NUMBER: ST-0002-SPC C

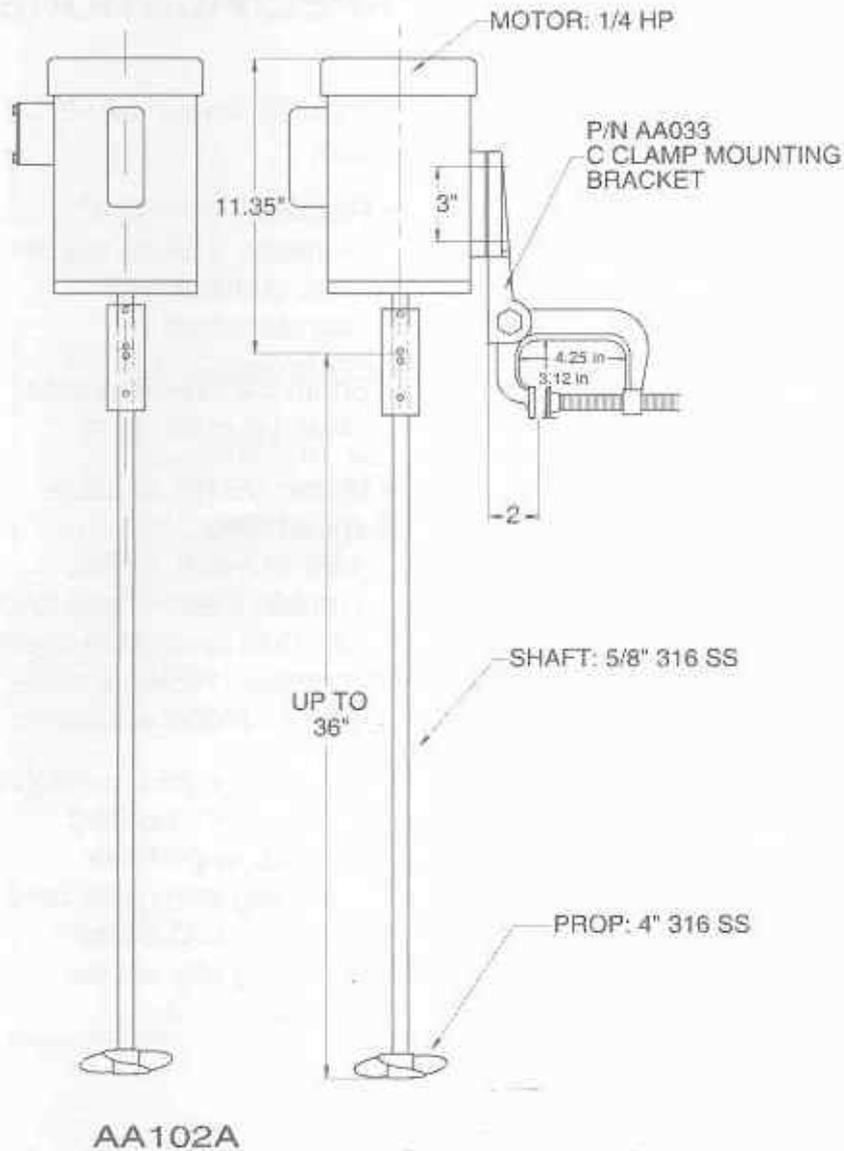




# pH System Components

# MADDEN

## MIXER MODEL NO. AA102A



### SPECIFICATIONS

- Speed: 1,725 rpm
- Propeller: (1 or 2)  
4" diameter, 3 blade  
marine type, material:  
316 stainless steel
- Shaft: 5/8" 316 stainless  
steel, up to 36" long
- Motor: 1/4 HP, 1,725 rpm,  
1/60/115-230, capacitor  
start, or 3/60/230-460,  
TEFC
- Mounting: rigid mounting to  
fixed mixer mounting  
bracket, or portable  
mounting with mixer motor  
mounted to C clamp  
mounting bracket no.  
AA033.

The Pulsatron Series E Plus offers manual control over stroke length and stroke rate as standard with the option to choose between 4-20mA and external pace inputs for automatic control.

Twenty distinct models are available, having pressure capabilities to 300 PSIG (21 BAR) @ 3 GPD (0.5 lph), and flow capacities to 600 GPD (94.6 lph) @ 30 PSIG (2 BAR), with a turndown ratio of 100:1. Metering performance is reproducible to within  $\pm 2\%$  of maximum capacity. Please refer to the reverse side for Series E PLUS specifications.

### Features

- Automatic Control, available with 4-20mADC direct or external pacing, with stop function.
- Manual Control by on-line adjustable stroke rate and stroke length.
- Auto-Off-Manual switch.
- Highly Reliable timing circuit.
- Circuit Protection against voltage and current upsets.
- Panel Mounted Fuse.
- Solenoid Protection by thermal overload with auto-reset.
- Water Resistant, for outdoor and indoor applications.
- Indicator Lights, panel mounted.
- Guided Ball Check Valve Systems, to reduce back flow and enhance outstanding priming characteristics.
- Safe & Easy Priming with durable leak-free bleed valve assembly (standard).

### Controls



#### Manual Stroke Rate

- Turn-Down Ratio 10:1

#### Manual Stroke Length

- Turn-Down Ratio 10:1

#### 4-20mADC Direct or External Pacing with Stop

- Automatic Control

### Operating Benefits

- Reliable metering performance.
- Rated "hot" for continuous duty.
- High viscosity capability.
- Leak-free, sealless, liquid end.



### Aftermarket

- KOPkits
- Gauges
- Dampeners
- Pressure Relief Valves
- Tanks
- Pre-Engineered Systems
- Process Controllers (PULSAblue, MicroVision)



# PULSAtron® Series E Plus

## Specifications and Model Selection

MODEL		LPK2	LPB2	LPA2	LPD3	LPB3	LPA3	LPK3	LPF4	LPD4	LPB4	LPH4	LPG4	LPE4	LPK5	LPH5	LPH6	LPK7	LPH7	LPJ7	LPH8
Capacity nominal (max.)	GPH	0.13	0.21	0.25	0.5	0.50	0.50	0.60	0.85	0.90	1.00	1.70	1.75	1.85	2.50	3.15	5.00	8.00	10.00	10.00	25.00
	GPD	3	5	6	12	12	12	14	20	22	24	41	42	44	60	76	120	192	240	240	600
	LPH	0.5	0.8	0.9	1.9	1.9	1.9	2.3	3.2	3.4	3.8	6.4	6.6	7	9.5	11.9	18.9	30.3	37.9	37.9	94.6
Pressure (max.)	PSIG	300	250	150	250	150	100	100	250	150	100	250	150	100	150	150	100	50	35	80	30
	BAR	21	17	10	17	10	7	7	17	10	7	17	10	7	10	10	7	3.3	2.4	5.5	2
Connections	Tubing	1/4" ID X 3/8" OD										3/8" ID X 1/2" OD									
	Piping	3/8" ID X 1/2" OD										1/2" ID X 3/4" OD (LPH8 ONLY)									
		1/4" FNPT										1/4" FNPT									
												1/2" FNPT									

### Engineering Data

Pump Head Materials Available:	GFPP	PVC	PVDF	316 SS
Diaphragm:	PTFE-faced CSPE-backed			
Check Valves Materials Available:				
Seats/O-Rings:	PTFE	CSPE	Viton	
Balls:	Ceramic	PTFE	316 SS	Alloy C
Fittings Materials Available:	GFPP	PVC	PVDF	
Bleed Valve:	Same as fitting and check valve selected, except 316SS			
Injection Valve & Foot Valve Assy:	Same as fitting and check valve selected			
Tubing:	Clear PVC	White PE		

Important: Material Code - GFPP=Glass-filled Polypropylene, PVC=Polyvinyl Chloride, PE=Polyethylene, PVDF=Polyvinylidene Fluoride, CSPE=Generic formulation of Hypalon, a registered trademark of E.I. DuPont Company. Viton is a registered trademark of E.I. DuPont Company. PVC wetted end recommended for sodium hypochlorite.

### Engineering Data

Reproducibility:	+/- 2% at maximum capacity
Viscosity Max CPS :	
For viscosity up to 3000 CPS, select connection size 3, 4, B or C with 316SS ball material. Flow rate will determine connection/ball size. Greater than 3000 CPS require spring loaded ball checks. See Selection Guide for proper connection.	
Stroke Frequency Max SPM:	125
Stroke Frequency Turn-Down Ratio:	10:1
Stroke Length Turn-Down Ratio:	10:1
Power Input:	115 VAC/50-60 HZ/1 ph 230 VAC/50-60 HZ/1 ph
Average Current Draw:	
@ 115 VAC; Amps:	1.0 Amps
@ 230 VAC; Amps:	0.5 Amps
Peak Input Power:	300 Watts
Average Input Power @ Max SPM:	130 Watts

### Custom Engineered Designs – Pre-Engineered Systems



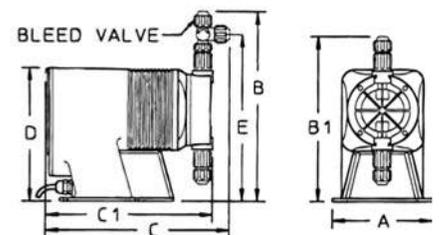
#### Pre-Engineered Systems

Pulsafeeder's Pre-Engineered Systems are designed to provide complete chemical feed solutions for all electronic metering applications. From stand alone simplex pH control applications to full-featured, redundant sodium hypochlorite disinfection metering, these rugged fabricated assemblies offer turn-key simplicity and industrial-grade durability. The UV-stabilized, high-grade HDPE frame offers maximum chemical compatibility and structural rigidity. Each system is factory assembled and hydrostatically tested prior to shipment.

### Dimensions

Series E Plus Dimensions (inches)																	
Model No.	A	B	B1	C	C1	D	E	Shpg Wt	Model No.	A	B	B1	C	C1	D	E	Shpg Wt
LPA2	5.4	10.3	-	10.8	-	7.5	8.9	13	LPH4	6.2	10.9	-	11.2	-	8.2	9.5	21
LPA3	5.4	10.6	-	10.7	-	7.5	9.2	13	LPH5	6.2	11.3	-	11.2	-	8.2	9.9	21
LPB2	5.4	10.3	-	10.8	-	7.5	8.9	13	LPH6	6.2	11.3	-	11.9	-	8.2	9.9	21
LPB3	5.4	10.6	-	10.7	-	7.5	9.2	13	LPH7	6.1	11.7	-	11.9	-	8.2	10.3	21
LPB4	5.4	10.6	-	10.7	-	7.5	9.2	13	LPH8*	6.1	-	10.9	-	11.3	8.2	-	26
LPD3	5.4	10.6	-	11.2	-	7.5	9.2	15	LPK2	5.4	10.3	-	10.8	-	7.5	8.9	13
LPD4	5.4	10.6	-	11.2	-	7.5	9.2	15	LPK3	5.4	10.6	-	10.7	-	7.5	9.2	13
LPE4	5.4	10.6	-	11.2	-	7.5	9.2	15	LPK5	5.4	10.9	-	11.7	-	7.5	9.5	18
LPF4	5.4	10.6	-	11.7	-	7.5	9.2	18	LPK7	6.1	11.7	-	11.2	-	8.2	10.3	21
LPG4	5.4	10.6	-	11.7	-	7.5	9.2	18	LPJ7	6.1	10	-	10.7	-	-	-	21

NOTE: Inches X 2.54 = cm / \* the LPH8 is designed without a bleed valve available



**+GF+® Signet pH/ORP Controllers**

Versatile mounting options allow you to customize the installation for particular applications

■ Large, scratch-resistant, self-healing display

+GF+ Signet controllers are designed for broad application and ease of setup and operation. Multiple mounting options allow for installation best suited to your particular application. Intuitive software and four-button keypad arrangement make it easy to access important information such as measurement values, calibration data, relay setup menus, and more.

Optional universal mounting kit allows for mounting of field-mount units on pipes, tanks, and walls. RC filter kit prevents premature wearing of the relay outputs by providing protection from electrical noise. Order separately below.

**NEW**

**Required System Components**

- 1 Controller
- 2 Preamplifier
- 3 Electrode



Field-mount controller 56560-20



Panel-mount controller 56560-30



DryLoc® pH and ORP electrodes

**Specifications**

ISO9001:2000  
CERTIFIED SUPPLIER

UL US

CE



2 year warranty

Meter only Meter only

Model		+GF+ Signet 8750-1	+GF+ Signet 8750-2	+GF+ Signet 8750-3
Range	pH	0.00 to 14.00	0.00 to 14.00	0.00 to 14.00
	mV	-1000 to 2000 mV	-1000 to 2000 mV	-1000 to 2000 mV
	Temperature	-13 to 248°F (-25 to 120°C)	-13 to 248°F (-25 to 120°C)	-13 to 248°F (-25 to 120°C)
Resolution	pH	0.01	0.01	0.01
	mV	1 mV	1 mV	1 mV
	Temperature	0.1°C (0.1°F)	0.1°C (0.1°F)	0.1°C (0.1°F)
Accuracy	pH	±0.03	±0.03	±0.03
	mV	±2 mV	±2 mV	±2 mV
	Temperature	±0.5°C (±1°F)	±0.5°C (±1°F)	±0.5°C (±1°F)
Temperature compensation		Automatic, 3 kΩ Balco	Automatic, 3 kΩ Balco	Automatic, 3 kΩ Balco
Control type		On/off (limit) or proportional	On/off (limit) or proportional	On/off (limit) or proportional
Number of set points		Two (low, high)	Two (low, high)	Two (low, high)
Output	Relay	—	Two SPDT relays, 5 A at 30 VDC or 250 VAC resistive load maximum	—
	Current	One 4 to 20 mA, isolated, fully adjustable and reversible	One 4 to 20 mA, isolated, fully adjustable and reversible	Two 4 to 20 mA, isolated, fully adjustable and reversible
	Open collector	One open-collector, optically isolated, 50 mA max	—	Two open-collector, optically isolated, 50 mA max
Dead band		User adjustable	User adjustable	User adjustable
Housing		NEMA 4X (IP65) front panel	NEMA 4X (IP65) front panel	NEMA 4X (IP65) front panel
Display		2 x 16 alphanumeric LCD	2 x 16 alphanumeric LCD	2 x 16 alphanumeric LCD
Dimensions (W x H x D)		Field-mount: 3 1/16" x 3 1/16" x 4 3/16" (96 x 96 x 106 mm) Panel-mount: 3 1/16" x 3 1/16" x 3 1/16" (96 x 96 x 97 mm)		
Power		12 to 24 VDC	12 to 24 VDC	12 to 24 VDC

**1 Controllers**

Catalog number	Model	Mounting style	Price
S-56560-18	+GF+ Signet 8750-1	Field mount	
S-56560-28	+GF+ Signet 8750-1P	Panel mount, 1/4 DIN	
S-56560-20	+GF+ Signet 8750-2	Field mount	
S-56560-30	+GF+ Signet 8750-2P	Panel mount, 1/4 DIN	
S-56560-22	+GF+ Signet 8750-3	Field mount	
S-56560-32	+GF+ Signet 8750-3P	Panel mount, 1/4 DIN	

S-05631-50 Universal mounting kit for field-mount units

S-19007-52 RC filter kit for relay use. Pack of 2

S-17106-20 NIST-traceable calibration

**2 Preamplifiers**

Preamplifiers protect the relatively weak output signal of the pH or ORP electrode from electrical interferences common in industrial environments and are required for initial system installation. Unique DryLoc® connectors allow you to quickly form robust assemblies for submersible and in-line applications.

Catalog number	Thread size	Price
S-56560-03	3/4" NPT(M)	
S-56560-04	ISO 7-1 R3/4"	

**3 Electrodes**

Feature-packed pH and ORP electrodes feature unique DryLoc connectors which offer resistance to intrusion from dirt and moisture. Extended reference path length extends electrode life over traditional combination electrodes. Electrode bodies are Ryton® PPS for added chemical resistance and feature a 3/4" NPT(M) or ISO 7-1 R3/4" threads for in-line installation. Flat-surface electrodes minimize abrasion and breakage problems by allowing sediment to sweep past the measurement surface. Bulb-style electrodes feature quick response and are well-suited to general-purpose applications. HF-resistant electrodes resist hydrofluoric acid in concentration less than 2%. LC-bulb electrodes are designed for ultrapure, low-conductivity water applications. All have a 3 kΩ Balco ATC element and measure 0 to 14 pH.

Catalog number	Type	Thread size	Price
S-56561-02	pH, flat surface	3/4" NPT(M)	
S-56561-03		ISO 7-1 R3/4"	
S-56561-10	pH, bulb style	3/4" NPT(M)	
S-56561-11		ISO 7-1 R3/4"	
S-56561-06	pH, HF-resistant bulb	3/4" NPT(M)	
S-56561-07		ISO 7-1 R3/4"	
S-56561-14	pH, LC bulb	3/4" NPT(M)	
S-56561-15		ISO 7-1 R3/4"	
S-56561-16	ORP, flat surface	3/4" NPT(M)	
S-56561-17		ISO 7-1 R3/4"	

**SECTION 1. PRODUCT IDENTIFICATION**

Trade Name **77 % - 100 % Sulfuric Acid**  
 Product Code None  
 Manufacturers/Distributors NorFalco Inc., 6000 Lombardo Center, The Genesis Bldg, suite 650 Seven Hills, OH 44131  
 NorFalco Sales Inc., 6755 Mississauga Road, Suite 304, Mississauga, Ontario L5N 7Y2  
 Information Contact André Auger, Administration Assistant  
 Product Information 1-905-542-6901 (Mississauga)  
 Phone Number (Transportation Emergency) Canada 1-877-ERP-ACID (377-2243)  
 Phone Number (Transportation Emergency) U.S.A. 1-800-424-9300 CHEMTREC  
 Phone Number (Medical Emergency) **1-418-656-8090**  
 Phone Number (Emergency) **CANUTEC 1-613-996-6666**  
 Synonyms Dihydrogen Sulfate ; Oil of Vitriol ; Vitriol Brown Oil ; Sulphuric Acid.  
 Acide sulfurique (French)  
 Name / Chemical Formula Sulfuric Acid / H<sub>2</sub>SO<sub>4</sub>  
 Chemical Family Acid  
 Utilization Chemical industries ; Water treatment ; Fertilizer ; Pulp and Paper.  
 Manufacturers CEZinc on behalf of Noranda Income Limited Partnership, Salaberry-de-Valleyfield (Quebec) Canada J6T 6L4  
 Xstrata Copper, Home Smelter, Rouyn-Noranda (Quebec) J9X 5B6  
 Xstrata Zinc, Brunswick Smelting, Belledune, New Brunswick E0B 1G0  
 Xstrata Copper, Kidd Metallurgical Division, Timmins, Ontario P4N 7K1  
 Xstrata Nickel, Sudbury Operations, Falconbridge, Ontario P0M 1S0

**SECTION 2. HAZARDS IDENTIFICATION**

WHMIS (Canada) CLASS D-1A : Very toxic material causing immediate and serious effects  
 CLASS E : Corrosive material  
 Labeling (EEC) C Corrosive



**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Name	CAS #	Percentage (%)	# CE	R Phrases <sup>1</sup>
Sulfuric (Acid)	7664-93-9	77 % to 100 %	231-639-5	R35
60 Deg Technical		77.7		
66 Deg Technical		93.2		
1.835 Electrolyte		93.2		
98 % Technical		98		
99 % Technical		99		
100 % Technical		100		
Water	7732-18-5	0-22		

Note 1 : See section 15 for the complete wording of risk phrases.

**SECTION 4. FIRST-AID MEASURES**

**Eye Contact** Remove contact lenses if present. Immediately flush eyes with plenty of water, holding eyelids open for at least 15 minutes. Consult a physician. Possibility of conjunctivitis, severe irritation, severe burns, permanent eye damage.

**Skin Contact** Remove contaminated clothing and shoes as quickly as possible protecting your hands and body. Place under a deluge shower for 15 minutes. Flush exposed skin gently and thoroughly with running water (Pay particular attention to : Folds, crevices, creases, groin). Call a physician if irritation persists. May irritate skin, cause burns (Highly corrosive) and possibility of some scarring.  
 Wash contaminated clothing before reusing. While the patient is being transported to a medical facility, continue the application of cold, wet compresses. If medical treatment must be delayed, repeat the flushing with cold water or soak the affected area with cold water to help remove the last traces of sulfuric acid. *Creams or ointments SHOULD NOT be applied before or during the washing phase of treatment.*

**Inhalation** Take precautions to avoid secondary contamination by residual acids. Remove the person to fresh air. If not breathing, give artificial respiration. Difficult breathing : Give oxygen. Get immediate medical attention. Possibility of damage to the upper respiratory tract and lung tissues. Maintain observation of the patient for delayed onset of pulmonary oedema. May cause irritation to the upper respiratory tract : Coughing, sore throat, shortness of breath.

**Ingestion** **DO NOT INDUCE VOMITING.** Conscious and alert person : Rinse mouth with water and give ½ to 1 cup of water or milk to dilute material. **Spontaneous vomiting** : Keep head below hips to prevent aspiration ; Rinse mouth and give ½ to 1 cup of water or milk. **UNCONSCIOUS** person : **DO NOT** induce vomiting or give any liquid. **Immediately** obtain medical attention.

Notes to Physicians

Continued washing of the affected area with cold or iced water will be helpful in removing the last traces of sulfuric acid. Creams or ointments should not be applied before or during the washing phase of the treatment.

**SECTION 5. FIRE-FIGHTING MEASURES**

<b>Flash Point</b>	Not available
<b>Flammable Limits</b>	Not available
<b>Auto-Ignition Temperature</b>	Not available
<b>Products of Combustion</b>	Releases of sulfur dioxide at extremely high temperatures.
<b>Fire Hazard</b>	Not flammable
<b>Explosion Hazard</b>	Reacts with most metals, especially when dilute : Hydrogen gas release ( <b>Extremely</b> flammable, explosive). Risk of explosion if acid combined with water, organic materials or base solutions in enclosed spaces (Vacuum trucks, tanks). Mixing acids of different strengths/concentrations can also pose an explosive risk in an enclosed space/container.
<b>Extinguishing media</b>	ERG (Emergency Response Guidebook) : Guide 137 When material is not involved in fire, do not use water on material itself. <b>Small fire</b> : Dry chemical or CO <sub>2</sub> . Move containers from fire area if you can do it without risk. <b>Large fire</b> : Flood fire area with large quantities of water, while knocking down vapors with water fog. If insufficient water supply: knock down vapors only. <b>Fire involving Tanks or Car/Trailer Loads</b> : Cool containers with flooding quantities of water until well after fire is out. Do not get water inside containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire.
<b>Protective equipment</b>	Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Generates heat upon addition of water, with possibility of spattering. Wear full protective clothing. Runoff from fire control may cause pollution. Neutralize run-off with lime, soda ash, etc., to prevent corrosion of metals and formation of hydrogen gas. Wear self-contained breathing apparatus if fumes or mists are present.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Spill</b>	Review <b>Fire and Explosion Hazards</b> and <b>Safety Precautions</b> before proceeding with clean up. Stop flow if possible. Soak up small spills with dry sand, clay or diatomaceous earth.
<b>Methods</b>	Dike large spills, and cautiously dilute and neutralize with lime or soda ash, and transfer to waste water treatment system. Prevent liquid from entering sewers, waterways, or low areas. If this product is spilled and not recovered, or is recovered as a waste for treatment or disposal, the Reportable Quantity (U.S. DOT) is 1 000 lbs (Based on the sulfuric acid content of the solution spilled). Comply with Federal, State, and local regulations on reporting releases.
<b>Protective equipment</b>	Review Fire Fighting Measures and Handling (Personnel Protection) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**SECTION 7. HANDLING AND STORAGE**

<b>Handling</b>	Do not get in eyes, on skin, or on clothing. Avoid breathing vapours or mist. Wear approved respirators if adequate ventilation cannot be provided. Wash thoroughly after handling. Ingestion or inhalation : Seek medical advice <b>immediately</b> and provide medical personnel with a copy of this MSDS.
<b>Conditions for storage</b>	Sulfuric acid must be stored in containers or tanks that have been specially designed for use with sulfuric acid. <b>DO NOT</b> add water or other products to contents in containers as violent reactions will result with resulting high heat, pressure and/or generation of hazardous acid mists. Keep containers away from heat, sparks, and flame. All closed containers must be safely vented before each opening. For more information on sulfuric acid tanks, truck tanks and tank cars including safe unloading information go to <a href="http://www.norfalco.com">www.norfalco.com</a> .

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters

Name	# CAS	Control parameters	
		ACGIH (U.S.A.) 2008 TLV-TWA (mg/m <sup>3</sup> )	OSHA (U.S.A.) PEL - TWA (mg/m <sup>3</sup> )
Sulfuric (Acid)	7664-93-9	0.2 (thoracic fr.)	1
60 Deg Technical	7664-93-9	0.2 (thoracic fr.)	1
66 Deg Technical	7664-93-9	0.2 (thoracic fr.)	1
1.835 Electrolyte	7664-93-9	0.2 (thoracic fr.)	1
98 % Technical	7664-93-9	0.2 (thoracic fr.)	1
99 % Technical	7664-93-9	0.2 (thoracic fr.)	1
100 % Technical	7664-93-9	0.2 (thoracic fr.)	1
Water	7732-18-5	Not established	Not established

ACGIH : American Conference of Governmental Industrial Hygienists. OSHA : Occupational Safety and Health Administration.

**Note :** Sulfuric (Acid) : Exposure limits may be different in other jurisdictions. NIOSH REL-TWA ( $\leq 10$  hours) :  $1 \text{ mg/m}^3$  ; IDLH :  $15 \text{ mg/m}^3$ .

*Consult local authorities for acceptable exposure limits.*

**Engineering Controls** Good general ventilation should be provided to keep vapour and mist concentrations below the exposure limits.  
**Individual protection** Chemical splash goggles ; Full-length face shield/chemical splash goggles combination ; Acid-proof gauntlet gloves, apron, and boots ; Long sleeve wool, acrylic, or polyester clothing ; Acid proof suit and hood ; Appropriate NIOSH respiratory protection.



In case of emergency or where there is a strong possibility of considerable exposure, wear a complete acid suit with hood, boots, and gloves. If acid vapour or mist are present and exposure limits may be exceeded, wear appropriate NIOSH respiratory protection.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State and Appearance</b>	Liquid (Oily ; Clear to turbid)	<b>Odour</b>	Odourless
<b>Molecular Weight</b>	98.08	<b>Colour</b>	Colourless to light grey
<b>pH (1% soln/water)</b>	< 1	<b>Volatility</b>	< 1 (Butyl Acetate = 1.0)
<b>Boiling Point</b>	193°C to 327 °C (379°F to 621°F) @ 760 mm Hg	<b>Vapour Density</b>	3.4
<b>Melting Point</b>	-35°C to 11°C (-31°F to 52°F)	<b>Dispersion</b>	Yes (Water)
<b>Vapour Pressure</b>	< 0.3 mm Hg @ 25°C (77 °F) < 0.6 mm Hg @ 38°C (100 °F)	<b>Solubility</b>	Yes (Water)

GRADE	Boiling Point		Freezing Point		Specific Gravity
	DEG °C	DEG °F	DEG °C	DEG °F	
60 DEG TECHNICAL	193	380	- 12	10	1.706
66 DEG TECHNICAL	279	535	- 35	- 31	1.835
1.835 ELECTROLYTE	279	535	- 35	- 31	1.835
98 % TECHNICAL	327	621	- 2	29	1.844
99 % TECHNICAL	310	590	4	40	1.842
100 % TECHNICAL	274	526	11	51	1.839

**SECTION 10. STABILITY AND REACTIVITY**

**Stability** Yes (Under normal conditions of ambient temperature)  
**Reactivity** Reacts violently with water, organic substances and base solutions with evolution of heat and hazardous mists.  
**Conditions to avoid** Heat : Possibility of decomposition. Release of dangerous gases (Sulfur oxides  $\text{SO}_2$ ,  $\text{SO}_3$ )  
**Polymerization** Polymerization will not occur.  
**Incompatibilities** Vigorous reactions with : Water; alkaline solutions ; Metals, metal powder ; Carbides ; Chlorates ; Fulminates ; nitrates ; Picrates ; Strong oxidizing, reducing, or combustible organic materials. Hazardous gases are evolved on contact with chemicals such as cyanides, sulfides, and carbides.  
**Corrosivity** Yes

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Routes of Entry** Ingestion. Inhalation. Skin and eye contacts.  
**Carcinogenicity** **Strong inorganic acid mists containing sulfuric acid (Occupational exposures) :** PROVEN (Human, Group 1, IARC) ; SUSPECTED (Human, Group A2, ACGIH) ; Group X (NTP) ; Classification not applicable to sulfuric acid and sulfuric acid solutions.  
**Mutagenicity** Not applicable.  
**Teratogenicity** Not applicable.  
**Acute toxicity** ORAL (LD50) :  $2\ 140 \text{ mg/kg}$  (Rat) ; INHALATION (LC50, 2 hours) :  $510 \text{ mg/m}^3$  (Rat) ;  $320 \text{ mg/m}^3$  (Mouse). (RTECS).  
**Acute Effects** May be fatal if inhaled or ingested in large quantity. Liquids or acid mists : May produce tissue damage : Mucous membranes (Eyes, mouth, respiratory tract). **Extremely** dangerous by eyes and skin contact (**Corrosive**). Severe irritant for eyes : Inflammation (Redness, watering, itching). Very dangerous in case of inhalation (Mists) at high concentrations : May produce severe irritation of respiratory tract (Coughing, shortness of breath, choking).  
**Chronic Effects** Target organs for acute and chronic overexposure (NIOSH 90-117) : Respiratory system, eyes, skin, teeth.  
**Acid mists :** Overexposure to strong inorganic mists containing sulfuric acid : Possibility of laryngeal cancer (HSBD, IARC). Possibility of irritation of the nose and throat with sneezing, sore throat or runny nose. Headache, nausea and weakness. Gross overexposure : Possibility of irritation of nose, throat, and lungs with cough, difficulty breathing or shortness of breath. Pulmonary edema with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin. Symptoms may be delayed. Repeated or prolonged exposure to mists may cause : Corrosion of teeth.

**Contact (Skin)** : Possibility of corrosion, burns or ulcers. Contact with a 1 % solution : Possibility of slight irritation with itching, redness or swelling. Repeated or prolonged exposure (Mist) : Possibility of irritation with itching, burning, redness, swelling or rash.

**Contact (Eye)** : Possibility of corrosion or ulceration (Blindness may result). Repeated or prolonged exposure (Mist) : Possibility of eye irritation with tearing, pain or blurred vision.

**Ingestion** : Immediate effects of overexposure : Burns of the mouth, throat, esophagus and stomach, with severe pain, bleeding, vomiting, diarrhea and collapse of blood pressure. Damage may appear days after exposure.

**Toxicity** : Persons with the following pre-existing conditions warrant particular attention :  
**Sulfuric (Acid)** : Laryngeal irritation.

*Eating, drinking and smoking must be prohibited in areas where this material is handled and processed. Wash hands and face before eating, drinking and smoking.*

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity** : **Aquatic toxicity** : Slightly to moderately toxic.  
Bluegill Sunfish (LC50 ; 48 hours) : 49 mg/l (Tap water, 20 °C, conditions of bioessay not specified). (HSBD).  
Flounder (LC50 ; 48 hours) : 100-330 mg/l (Aerated water, conditions of bioessay not specified). (HSBD).

**Toxicity to Animals** : **EYE** : Concentrated compound is corrosive. 10 % solution : Moderate eye irritant.  
**SKIN** : Concentrated compound is corrosive. 10 % solution : Slight skin irritant.  
Single and repeated exposure : Irritation of the respiratory tract ; Corrosion of the respiratory tract ; Lung damage ; Labored breathing ; Altered respiratory rate ; Pulmonary oedema. Repeated exposure : Altered red blood cell count.

**Mobility (Soil)** : Easy soil seeping under rain action

**Persistence and degradability** : Sulfate ion : Ubiquitous in the environment. Metabolized by micro-organisms and plants.

**Bioaccumulation** : Sulfate ion : Ubiquitous in the environment. Metabolized by micro-organisms and plants without bioaccumulation.

**Biodegradation Products** : Not available

**Biodegradation Products (Toxicity)** : Not applicable

**Remarks on Environment** : Due to the product's composition, particular attention must be taken for transportation and storage. Protect from rain because the run-off water will become acidic and may be harmful to flora and fauna.

**BOD5 and COD** : Not available

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** : Cleaned-up material may be an hazardous waste on *Resource Conservation and Recovery Act* (RCRA) on disposal due to the corrosivity characteristic. **DO NOT** flush to surface water or sanitary sewer system. Comply with Federal, State, and local regulations. If approved, neutralize and transfer to waste treatment system.

**SECTION 14. TRANSPORT INFORMATION**

**TDG (Canada)** : CLASS 8 Corrosives

**PIN** : UN1830 SULFURIC ACID PG II

**Special Provisions (Transport)** : None

**DOT (U.S.A.)/IMO (Maritime)** : Proper Shipping Name : SULFURIC ACID  
Hazard Class : 8  
UN N° : 1830  
DOT/IMO Label : CORROSIVE  
Packing Group : II  
Reportable Quantity : 1000 lbs (454 kg)  
Shipping Containers : Tank Cars, Tank Trucks, Vessel

**ERG** : Guide 137



**SECTION 15 REGULATORY INFORMATION**

**Labeling (EEC)** : EU (Directive 67/548/EEC) :  
**Sulfuric (Acid)** : C Corrosive (Pictogram)  
Annex I Index number : 016-020-00-8 ; EU Consolidated Inventories : EC Number 231-639-5  
C ≥ 15 % C ; R35 ; S2, 26, 30, 45.

**Risk Phrases (EEC)** : R35- Causes severe burns

**Safety Phrases (EEC)** : S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S30- Nerver add water to this product  
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection  
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**CEPA DSL (CANADA)** CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) : On the Domestic Substances List (DSL) ; Acceptable for use under the provisions of CEPA.  
 Sulfuric Acid is a Class B Drug Precursor under Health Canada's Controlled Drugs and Substances Act and Precursor Control Regulations.

**Regulations (U.S.A.)** CERCLA Section 103 Hazardous substances (40 CFR 302.4) ; SARA Section 302 Extremely Hazardous Substances (40 CFR 355) : Yes ; SARA Section 313, Toxic Chemicals (40 CFR 372.65) ; US: TSCA Inventory : Listed :  
**Sulfuric (Acid)** (Final RQ) : 1 000 pounds (454 kg)  
 Sulfuric Acid is subject to reporting requirements of Section 313, Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), 40 CFR Part 372.  
 Certain companies must report emissions of Sulfuric Acid as required under The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 40 CFR Part 302  
 For more information call the SARA Hotline 800-424-9346.  
 Strong Inorganic Acid Mists Containing Sulfuric Acid : Chemical listed effective March 14, 2003 to the State of California, Proposal 65.  
U.S. FDA Food Bioterrorism Regulations : These regulations apply to Sulfuric Acid when being distributed, stored or used for Food or Food Processing.

**Classifications HCS (U.S.A.)** Corrosive liquid

**NFPA (National Fire Protection Association) (U.S.A.)**

**Fire Hazard 0 Reactivity 2 Health 3 Special Hazard ACID**

**NPCA- HMIS Rating**

**Fire Hazard 0 Reactivity 2 Health 3**

**SECTION 16. OTHER INFORMATION**

- References**
- TLVs and BEIs (2008). Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices. ACGIH, Cincinnati, OH – <http://www.acgih.org>
  - CCOHS (2008) - Canadian Centre for Occupational Health and Safety - <http://www.ccohs.ca/>
  - CSST (2008) - Commission de la Santé et de la Sécurité du Travail (Québec). Service du répertoire toxicologique - <http://www.reptox.csst.qc.ca/>
  - ERG (2008). Emergency Response Guidebook, Developed by the U.S. Department of Transportation, Transport Canada, and the Secretariat of Communications and Transportation of Mexico
  - HSDB (2008) - Hazardous Substances Data Bank. TOXNET® Network of databases on toxicology, hazardous chemicals, and environmental health. NLM Databases & Electronic Resources, U.S. National Library of Medicine, NHI, 8600 Rockville Pike, Bethesda, MD 20894 - <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>
  - IARC - Monographs on the Evaluation of Carcinogenic Risks to Humans (collection) - <http://www-cie.iarc.fr/>
  - Merck Index (1999). Merck & CO., Inc, 12th edition
  - NIOSH U.S. (2008) - Pocket Guide to Chemical Hazards - <http://www.cdc.gov/niosh/npg/>
  - Patty's Industrial Hygiene and Toxicology, 3rd Revised Edition
  - Règlement sur les produits contrôlés (Canada)
  - RTECS (2008). Registry of Toxic Effects of Chemical Substances, NIOSH, CDC
  - Toxicologie industrielle & intoxication professionnelle, 3e édition, Lauwerys

- Glossary**
- CSST : Commission de la Santé et de la Sécurité du Travail (Québec).
  - HSDB : Hazardous Substances Data Bank.
  - IARC : International Agency for Research on Cancer.
  - NIOSH : National Institute of Occupational Safety and Health.
  - NTP : U.S. National Toxicology Program.
  - RTECS : Registry of Toxic Effects of Chemical Substances

**Note**

For further information, see NorFalco Inc. Sulfuric Acid « Storage and Handling Bulletin ».  
 Because of its corrosive characteristics and inherent hazards, Sulfuric Acid should not be used in sewer or drain cleaners or any similar application; regardless of whether they are formulated for residential, commercial or industrial use. NorFalco will not knowingly sell sulfuric acid to individuals or companies who repackage the product for sale as sewer or drain cleaners, or any other similar use.  
 The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.  
 For additional information, please visit our website : [www.norfalco.com](http://www.norfalco.com)

**Written by :** Groupe STEM Consultants / NorFalco Sales Inc.

**Complete revision :** 2009-01-24

**Partial review :** None

**Previous complete revision :** 2008-01-24

**NorFalco Inc.**  
**NorFalco Sales Inc.**

**77% - 100% SULFURIC ACID**

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**Verified by :** Guy Desgagnés and Eric Kuraitis, Technical Representative - Sulfuric Acid

**Request to :** André Auger, Administration Assistant    Tel. : (905) 542-6901 extension 0    Fax : (905) 542-6914 / 6924  
NorFalco Sales Inc., 6755 Mississauga Road, Suite 304, Mississauga, Ontario L5N 7Y2

**Notice to Reader**

*Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. NorFalco Sales Inc. extends no warranty and assumes no responsibility for the accuracy of the content and expressly disclaims all liability for reliance thereon. This material safety data sheet provides guidelines for the safe handling and processing of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.*

**APPENDIX D**

**BWSC Permit**

**Boston Water and  
Sewer Commission**

980 Harrison Avenue  
Boston, MA 02119  
617-989-7000  
Fax: 617-989-7718



February 24, 2017

Mr. Alexander Shing  
Boston Seaport M1&2 Land, LLC  
101 Seaport Boulevard, Suite 602  
Boston, MA 02210

RE: Temporary Construction Dewatering Permit  
145 Seaport Boulevard  
South Boston, MA

Dear Mr. Shing:

Based on the information provided in your application, the proposed discharge is acceptable to the Boston Water and Sewer Commission. You are granted, pursuant to Article V of the Regulations Governing the Use of Sanitary and Combined Sewers and Storm Drains, permission to discharge into the Boston Water and Sewer Commission storm drainage system.

The following conditions must be adhered to:

1. All water discharged must pass through a treatment system consisting of a sedimentation tank and bag filters prior to discharge to catch basins on Seaport Boulevard, leading to the 30" storm drain and discharging to Commission Outfall SDO195.
2. Any changes in the aforementioned plan must be approved by the BWSC prior to discharge.
3. If necessary, the use of granular activated carbon filters may be required.
4. Every precaution must be taken to avoid disruption of existing water and sewer connections.
5. All provisions outlined in EPA's Construction General Permit MAG910000 must be strictly complied with.
6. You must acquire all appropriate permits from the other agencies that are relevant to the nature of this work.
7. This permit is valid from February 24, 2017 until December 1, 2017. Upon completion, the Boston Water and Sewer Commission must be notified in writing.

If you have any questions you can call me at (617) 989-7204.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew Tuttle", written over the word "Sincerely,".

Matthew Tuttle  
Construction Site Manager

Cc: Stephen Perkins, EPA  
Amy Schofield, BWSC

**APPENDIX E**

**National Register of Historic Places Documentation**

145 seaport blvd Search

Bing MassDOT Street View

### Available Layers

- Base Layer
- Inventory Layers
- MassGIS Layers

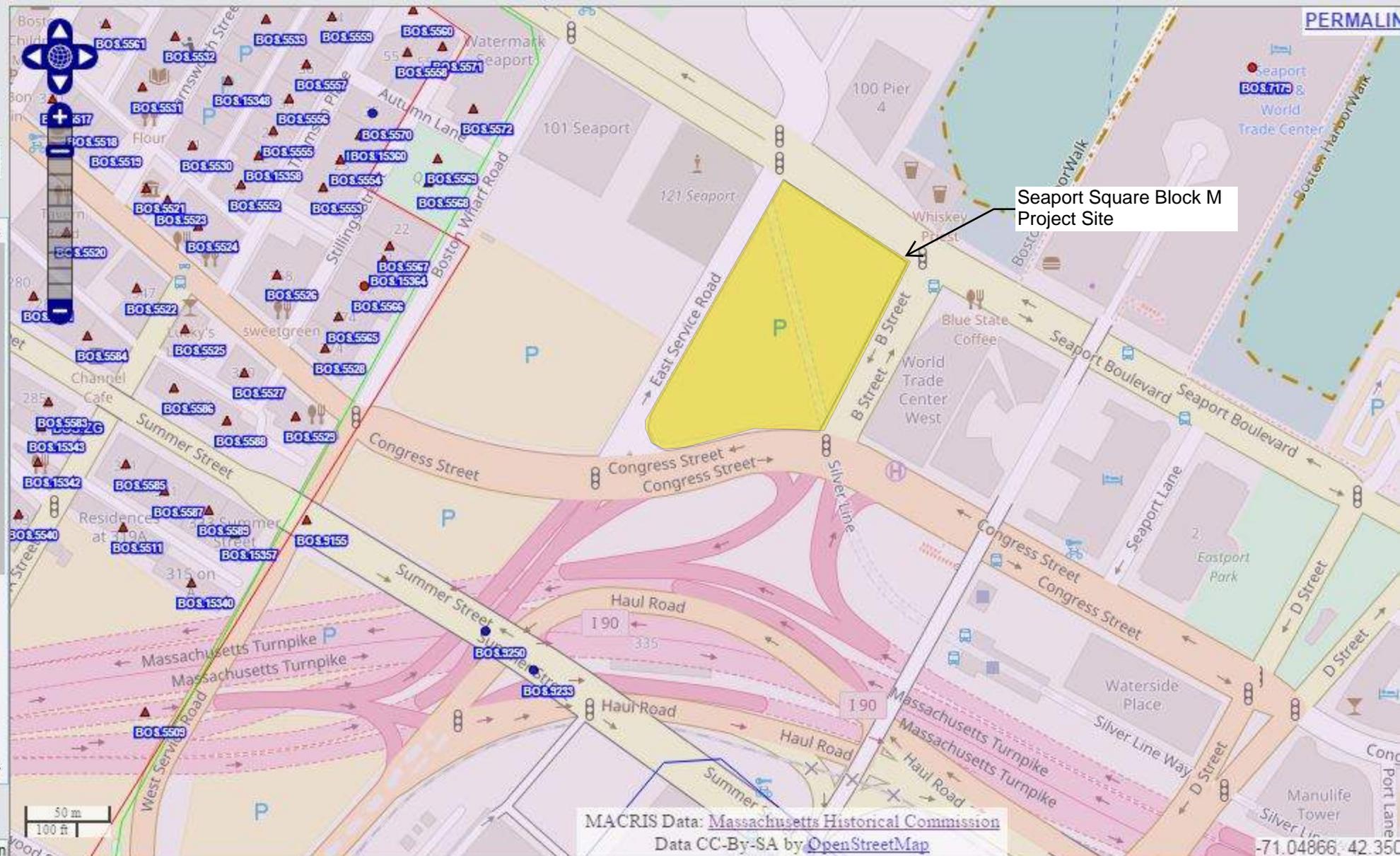
### Legend

- #### MHC Inventory Points
- Nat'l Register of Historic Places
  - ★ Preservation Restriction
  - ▲ Local Historic District
  - ▲ NRHP and LHD
  - Inventoried Property

### Archaeology Login

Username:

Password:



Seaport Square Block M Project Site

MACRIS Data: [Massachusetts Historical Commission](#)  
Data CC-BY-SA by [OpenStreetMap](#)

-71.04866; 42.350

# Massachusetts Cultural Resource Information System

## MACRIS

### MACRIS Search Results

Search Criteria: Town(s): Boston; Place: South Boston; Resource Type(s): Building, Area, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
BOS.CX	Fort Point Channel District		Boston	
BOS.IQ	Old Harbor Village		Boston	
BOS.IR	Dorchester Heights National Historic Site		Boston	
BOS.IU	Saint Augustine Chapel and Cemetery		Boston	
BOS.IV	South Boston Waterfront District		Boston	
BOS.RT	Boston Army Supply Base		Boston	
BOS.RU	C Street Industrial Area		Boston	
BOS.RV	King Terminal		Boston	
BOS.SI	Cathedral of Saint George Historic District		Boston	
BOS.TP	Dorchester Heights Historic District		Boston	
BOS.WQ	Gate of Heaven Roman Catholic Church Complex		Boston	
BOS.WR	Our Lady of Czestochowa Roman Catholic Church		Boston	
BOS.WS	Saint Augustine Roman Catholic Church Complex		Boston	
BOS.WT	Saint Brigid Roman Catholic Church Complex		Boston	
BOS.WU	Saint Peter (Lithuanian) Roman Catholic Church		Boston	
BOS.WV	Saints Peter and Paul Roman Catholic Church		Boston	
BOS.WW	Saint Vincent de Paul Roman Catholic Church		Boston	
BOS.WZ	Fort Point Channel Historic District		Boston	
BOS.YG	South Boston Boat Clubs Historic District		Boston	
BOS.ZD	Old Harbor Reservation Parkways		Boston	
BOS.ZG	Fort Point Channel Landmark District		Boston	
BOS.AAU	Beckler Avenue, 1-16		Boston	
BOS.6815	Dahlquist Coppersmiths Manufacturing Company	87-97 A St	Boston	r 1895
BOS.6816	United States Post Office Garage	135 A St	Boston	1941
BOS.5498	Boston Wharf Company Warehouse	168-170 A St	Boston	1897

Inv. No.	Property Name	Street	Town	Year
BOS.5499	Boston Wharf Company Warehouse	169 A St	Boston	1919
BOS.5500	Boston Wharf Company Warehouse	172-174 A St	Boston	1897
BOS.5501	Boston Wharf Company Warehouse	176-178 A St	Boston	1897
BOS.5502	Boston Wharf Company Warehouse	191-205 A St	Boston	1919
BOS.5503	Boston Wharf Company Building	207-209 A St	Boston	1916
BOS.5504	Boston Wharf Company Building	211-213 A St	Boston	1915
BOS.5505	Boston Wharf Company Warehouse	215-225 A St	Boston	1922
BOS.5506	Boston Wharf Company Warehouse	227-229 A St	Boston	1903
BOS.5507	Barlow, Frederick Building	239-241 A St	Boston	c 1895
BOS.5508	Factory Buildings Trust Industrial Building #5	249-255 A St	Boston	c 1895
BOS.5509	Keith, George E. Shoe Factory	288-304 A St	Boston	1912
BOS.5510	Boston Wharf Company Warehouse	289-293 A St	Boston	1893
BOS.5511	Boston Wharf Company Warehouse	319-321 A St	Boston	1913
BOS.15340	Dwinell - Wright Company Warehouse	319R A St	Boston	1923
BOS.15342	A Street Deli	324 A St	Boston	1945
BOS.15343	Boston Button Company Warehouse	326 A St	Boston	1889
BOS.12944	McDonald, Matt J. Company Special Steel Company	3 Anchor Way	Boston	c 1980
BOS.6817	Pike, Jacob - Abbott, Timothy Double House	92-94 B St	Boston	c 1834
BOS.6818	Boston Fire Department Hose Company #9	116 B St	Boston	1860
BOS.6819	Lawrence School	125 B St	Boston	1856
BOS.9652	Old Harbor Parkway - Babe Ruth Park Drive	Babe Ruth Park Dr	Boston	1924
BOS.6828	Beckler Avenue Rowhouse	1 Beckler Ave	Boston	c 1872
BOS.6820	Beckler Avenue Rowhouse	2 Beckler Ave	Boston	c 1872
BOS.6829	Beckler Avenue Rowhouse	3 Beckler Ave	Boston	c 1872
BOS.6821	Beckler Avenue Rowhouse	4 Beckler Ave	Boston	c 1872
BOS.6830	Beckler Avenue Rowhouse	5 Beckler Ave	Boston	c 1872
BOS.6822	Beckler Avenue Rowhouse	6 Beckler Ave	Boston	c 1872
BOS.6831	Beckler Avenue Rowhouse	7 Beckler Ave	Boston	c 1872
BOS.6823	Beckler Avenue Rowhouse	8 Beckler Ave	Boston	c 1872
BOS.6832	Beckler Avenue Rowhouse	9 Beckler Ave	Boston	c 1872
BOS.6824	Beckler Avenue Rowhouse	10 Beckler Ave	Boston	c 1872
BOS.6833	Beckler Avenue Rowhouse	11 Beckler Ave	Boston	c 1872
BOS.6825	Beckler Avenue Rowhouse	12 Beckler Ave	Boston	c 1872
BOS.6834	Beckler Avenue Rowhouse	13 Beckler Ave	Boston	c 1872
BOS.6826	Beckler Avenue Rowhouse	14 Beckler Ave	Boston	c 1872
BOS.6835	Beckler Avenue Rowhouse	15 Beckler Ave	Boston	c 1872
BOS.6827	Beckler Avenue Rowhouse	16 Beckler Ave	Boston	c 1872

Inv. No.	Property Name	Street	Town	Year
BOS.5512	Factory Buildings Trust Industrial Building #1	14-18 Binford St	Boston	1895
BOS.5513	Factory Buildings Trust Industrial Building #2	22-30 Binford St	Boston	1895
BOS.5514	Factory Buildings Trust Industrial Building #3	32-40 Binford St	Boston	1895
BOS.5515	Factory Buildings Trust Industrial Building #4	42-48 Binford St	Boston	1895
BOS.12945	Boston Army Supply Base - Wharf Shed	1 Black Falcon Dr	Boston	1918
BOS.15332	Saint Vincent de Paul Roman Catholic Rectory	201 Bolton St	Boston	r 1870
BOS.9243	Boston Street Bridge over MBTA	Boston St	Boston	1925
BOS.15322	Saint Mary's Roman Catholic Parochial School	46 Boston St	Boston	1911
BOS.6836	Broadway Streetcar - Broadway Bus Staton	Broadway Ave	Boston	1919
BOS.9247	Broadway Bridge over Fort Point Channel	Broadway Ave	Boston	1914
BOS.9249	Broadway Subway Station	Broadway Ave	Boston	1917
BOS.6837		450-454 Broadway Ave	Boston	r 1895
BOS.12973	Gahm, Joseph and Son Bottling Plant	340 C St	Boston	1908
BOS.12974	Brooklyn Cooperage Co. Kiln Building & Cooper Shop	352 C St	Boston	1904
BOS.12975	Brooklyn Cooperage Co. Storage & Shipping Building	360-366 C St	Boston	c 1904
BOS.12976	Standard Sanitary Manufacturing Company Building	365 C St	Boston	1924
BOS.12977		445 C St	Boston	1924
BOS.12978		475 C St	Boston	1919
BOS.12979	Brown and Wales Steel and Iron Company Warehouse	489-493 C St	Boston	c 1910
BOS.6838	Fort Independence	Castle Island	Boston	1809
BOS.5546	Boston Wharf Company Warehouse	1-5 Channel Center St	Boston	1916
BOS.5547	Boston Wharf Company Warehouse	1-5 Channel Center St	Boston	1914
BOS.5548	Abbott, W. Herbert, Inc. Building	1-5 Channel Center St	Boston	1913
BOS.5543	Boston Wharf Company Warehouse	15 Channel Center St	Boston	c 1914
BOS.5544	Boston Wharf Company Warehouse	15 Channel Center St	Boston	1911
BOS.5545	Boston Wharf Company Warehouse	15 Channel Center St	Boston	1912
BOS.5541	Boston Wharf Company Warehouse	35 Channel Center St	Boston	1902
BOS.12946	Boston Army Supply Base - Building 17	7 Channel St	Boston	c 1940
BOS.8062	Boston Army Supply Base Steam Locomotive Shop	11 Channel St	Boston	1918
BOS.12947	Boston Army Supply Base - Building 32	12 Channel St	Boston	c 1940
BOS.9648	Old Harbor Reservation Parkway - Columbia Road	Columbia Rd	Boston	1897
BOS.9649	Old Harbor Parkway - Columbia Road Median Strip	Columbia Rd	Boston	1897
BOS.9650	Old Harbor Parkway - Laporte, Joseph E.	Columbia Rd	Boston	1965

Inv. No.	Property Name	Street	Town	Year
	Monument			
BOS.9653	Old Harbor Reservation Parkway - Preble Circle	Columbia Rd	Boston	c 1941
BOS.9656	Old Harbor Reservation Parkway - Columbia Circle	Columbia Rd	Boston	1924
BOS.9657	Old Harbor Parkway - Kosciuszko, Tadeusz Monument	Columbia Rd	Boston	1951
BOS.9651	Old Harbor Parkway - Columbus Park Headworks	1305 Columbia Rd	Boston	1967
BOS.6839	Johnson, Samuel W. Three Decker	1650 Columbia Rd	Boston	1913
BOS.6840	Johnson, Samuel W. Three Decker	1654 Columbia Rd	Boston	1913
BOS.6841	Johnson, Samuel W. Three Decker	1658 Columbia Rd	Boston	1913
BOS.6842	Johnson, Samuel W. Three Decker	1662 Columbia Rd	Boston	1913
BOS.6843	Johnson, Samuel W. Two-Family House	1736 Columbia Rd	Boston	1911
BOS.6844	Johnson, Samuel W. Three Decker	1788 Columbia Rd	Boston	1904
BOS.6845	Johnson, Samuel W. Three Decker	1790 Columbia Rd	Boston	1904
BOS.6846	Johnson, Samuel W. Three Decker	1792 Columbia Rd	Boston	1904
BOS.6855	Boston Yacht Club	1793-1805 Columbia Rd	Boston	1874
BOS.6847	Johnson, Samuel W. Three Decker	1794 Columbia Rd	Boston	1904
BOS.6852	Puritan Canoe Club	1819 Columbia Rd	Boston	1899
BOS.6853	Columbia Yacht Club	1825-1829 Columbia Rd	Boston	1899
BOS.6854	South Boston Yacht Club	1839-1849 Columbia Rd	Boston	1899
BOS.9002	Congress Street Bridge over Fort Point Channel	Congress St	Boston	1930
BOS.9510	The Beaver	Congress St	Boston	
BOS.15344	Congress Street Bridge Tenders House	Congress St	Boston	1930
BOS.15345		305 Congress St	Boston	1983
BOS.5516	New Haven Terminal Stores	308-316 Congress St	Boston	c 1890
BOS.15346	Hood, H. P. Milk Bottle	308 Congress St	Boston	1934
BOS.15347	Lombard's Congress Street Stores	313 Congress St	Boston	1886
BOS.5517	Boston Wharf Company Building	320-324 Congress St	Boston	1888
BOS.5518	Boston Wharf Company Warehouse	326-330 Congress St	Boston	1888
BOS.5519	Boston Wharf Company Warehouse	332-336 Congress St	Boston	1892
BOS.5520	American Railway Express Company Stable	343 Congress St	Boston	1888
BOS.5521	Congress Street Fire Station	344-346 Congress St	Boston	1891
BOS.5522	Chase and Company Candy Company Factory	347-351 Congress St	Boston	1887
BOS.5523	Boston Wharf Company Warehouse	348-352 Congress St	Boston	1894
BOS.5524	Boston Wharf Company Warehouse	354-358 Congress St	Boston	1900
BOS.5525	Tremont Electric Lighting Company	355-359 Congress St	Boston	c 1905
BOS.5526	Boston Wharf Company Building	364-372 Congress St	Boston	1901
BOS.5527	Boston Wharf Company Wool Warehouse	369-375 Congress St	Boston	1918

Inv. No.	Property Name	Street	Town	Year
BOS.5528	Boston Wharf Company Building	374-384 Congress St	Boston	c 1903
BOS.5529	Boston Wharf Company Building	381-389 Congress St	Boston	1907
BOS.9775	Schooner Roseway	Courthouse Pier	Boston	1925
BOS.12980	Burnett, Joseph Company Extract Building	437 D St	Boston	1921
BOS.12981		451 D St	Boston	1910
BOS.6849	Woods, S. A. Woodworking Machinery Company Stable	27-37 Damrell St	Boston	c 1886
BOS.6850	Woods, S. A. Woodworking Machinery Company	28 Damrell St	Boston	1886
BOS.9647	Old Harbor Reservation Parkway - Farragut Rotary	Day, William J. Blvd	Boston	1893
BOS.6856	Gogin, Thomas House	7 Dexter St	Boston	r 1860
BOS.6857	Roers, R. House	9 Dexter St	Boston	r 1860
BOS.6859	Clough, Joseph H. House	15 Dexter St	Boston	r 1860
BOS.6858	Clough, Joseph H. House	19 Dexter St	Boston	r 1860
BOS.6860	Ellis, Charles H. House	23 Dexter St	Boston	r 1860
BOS.6861	Wadleigh, Dexter - Sharp, William Double House	27-29 Dexter St	Boston	c 1852
BOS.13275	Stetson, Alpheus M. House	12 Dixfield St	Boston	c 1869
BOS.13276	Stetson, Alpheus M. House	14 Dixfield St	Boston	c 1869
BOS.13277		15 Dixfield St	Boston	r 1880
BOS.13278	Rich, Reuben House	16 Dixfield St	Boston	c 1869
BOS.6862	Kent, Barker B. House	17 Dixfield St	Boston	c 1849
BOS.13279	Stetson, Alpheus M. House	18 Dixfield St	Boston	c 1869
BOS.13280		19 Dixfield St	Boston	
BOS.13281		21 Dixfield St	Boston	
BOS.13282		24 Dixfield St	Boston	
BOS.13283		26 Dixfield St	Boston	
BOS.12948	Boston Army Supply Base - Building 31	3 Dolphin Way	Boston	c 1940
BOS.6864	Andrew Street Car Transfer Station	Dorchester Ave	Boston	1918
BOS.9242	Dorchester Avenue Bridge over MBTA	Dorchester Ave	Boston	1925
BOS.9244	NY, NH and H Railroad Bridge #1.08	Dorchester Ave	Boston	
BOS.9248	Andrew Subway Station	Dorchester Ave	Boston	1918
BOS.9513	Dorchester Avenue Sea Wall	Dorchester Ave	Boston	
BOS.6863	MacAllen Electric Railway Material Co. Building	135-137 Dorchester Ave	Boston	r 1905
BOS.6865	Norway Iron Works Machine Shop	383 Dorchester Ave	Boston	c 1845
BOS.15319	Our Lady of Czestochowa Roman Catholic Church	655 Dorchester Ave	Boston	1894
BOS.15320	Our Lady of Czestochowa Roman Catholic Rectory	655 Dorchester Ave	Boston	1900
BOS.15321	Our Lady of Czestochowa Roman Catholic	666 Dorchester Ave	Boston	c 1900

Inv. No.	Property Name	Street	Town	Year
BOS.9240	Convent N.Y., N.H. and H. Railroad Bridge (Milepost #1.19)	Dorchester Brook	Boston	1961
BOS.6879	Unity Unitarian Chapel - Washington Village Chapel	Dorchester St	Boston	c 1860
BOS.6872	South Boston Gas Light Company	3-5 Dorchester St	Boston	c 1852
BOS.6873	Boston Engine House #1 & Municipal District Court	119-121 Dorchester St	Boston	1868
BOS.13284	White, Amos T. Three Decker	124 Dorchester St	Boston	1891
BOS.13285	Marion Manor	130 Dorchester St	Boston	1965
BOS.6866	Briggs, James Edwin House	142 Dorchester St	Boston	r 1856
BOS.6867	Sears, Jabez H. - Woods, Solomon A. House	146 Dorchester St	Boston	1859
BOS.13286	Morse, Albert House	149 Dorchester St	Boston	r 1860
BOS.13287	Whitcher, Martin C. House	151 Dorchester St	Boston	r 1860
BOS.13288		153 Dorchester St	Boston	r 1860
BOS.13289	Hall, Daniel Double House	154 Dorchester St	Boston	c 1852
BOS.13290	Silsby, Thomas J. House	155 Dorchester St	Boston	c 1852
BOS.13291	Adams, Orison Double House	156 Dorchester St	Boston	c 1852
BOS.13292	Orcutt, William K. House	158 Dorchester St	Boston	r 1860
BOS.13293	Pearson, E. House	159 Dorchester St	Boston	r 1860
BOS.13294	Giles, S. House	160 Dorchester St	Boston	r 1860
BOS.13295		161 Dorchester St	Boston	r 1860
BOS.6868	Lincoln, Charles House	162 Dorchester St	Boston	1858
BOS.13296	Bail, William V. House	164 Dorchester St	Boston	r 1860
BOS.6875	Rose, George Double House	165-169 Dorchester St	Boston	r 1855
BOS.13297	Collins, Jeremiah House	170 Dorchester St	Boston	r 1860
BOS.13298	Thayer, Samuel J. F. House	172 Dorchester St	Boston	c 1865
BOS.811	Saint Augustine Cemetery	181 Dorchester St	Boston	1819
BOS.7180	Saint Augustine Roman Catholic Chapel	181 Dorchester St	Boston	1819
BOS.6869	Mason, William H. House	200 Dorchester St	Boston	r 1855
BOS.6876	Saint Augustine Roman Catholic Church and Rectory	225 Dorchester St	Boston	c 1870
BOS.6870	Boston Fire House Horse Hose Company #10	330 Dorchester St	Boston	1861
BOS.6871	Dorchester Street Methodist Episcopal Church	340 Dorchester St	Boston	c 1889
BOS.6877	Richmond, Augustus C. House	351 Dorchester St	Boston	c 1873
BOS.6878	Hussey, Robert House	381 Dorchester St	Boston	c 1866
BOS.6880		397-403 Dorchester St	Boston	c 1910
BOS.9427	Boston Army Supply Base - Dry Dock #3	Dry Dock Ave	Boston	c 1914
BOS.12949	Boston Army Supply Base - Building 114	Dry Dock Ave	Boston	1918

Inv. No.	Property Name	Street	Town	Year
BOS.12952	Boston Army Supply Base - Parking Garage	Dry Dock Ave	Boston	c 1980
BOS.12957	Boston Army Supply Base - Building 22	Dry Dock Ave	Boston	c 1918
BOS.12958	Boston Army Supply Base - Building 23	Dry Dock Ave	Boston	c 1918
BOS.12961	Boston Army Supply Base - Building 40	Dry Dock Ave	Boston	c 1918
BOS.12962	Boston Army Supply Base - Buildings 117 and 113	Dry Dock Ave	Boston	1918
BOS.12950	Boston Army Supply Base - Building 15	10 Dry Dock Ave	Boston	c 1940
BOS.12951	British Airways World Cargo Building	15 Dry Dock Ave	Boston	c 1980
BOS.12953	Boston Army Supply Base - Building 20	20 Dry Dock Ave	Boston	c 1940
BOS.12954	Boston Army Supply Base - Public Works Building	22 Dry Dock Ave	Boston	c 1940
BOS.12955	Boston Army Supply Base - Building 21	24-26 Dry Dock Ave	Boston	c 1940
BOS.12959	Boston Army Supply Base - Building 1	32 Dry Dock Ave	Boston	c 1918
BOS.12960	Coastal Cement Corporation	39 Dry Dock Ave	Boston	c 1980
BOS.6881	Saint Augustine Roman Catholic Parochial School	201 E St	Boston	1893
BOS.15324	Saint Augustine Roman Catholic Church Convent	207 E St	Boston	1926
BOS.7119	Glynn, Martin T. and William Apartment Building	313 E St	Boston	1897
BOS.6882	Fletcher, Henry W. Double House	336-338 E St	Boston	c 1852
BOS.6883	Harris, James W. Double House	368-370 E St	Boston	c 1852
BOS.9257	Farragut, Adm. David Glasgow Statue	East Broadway	Boston	1893
BOS.9259	Independence Square	East Broadway	Boston	1855
BOS.6952	James, Francis Row House	495 East Broadway	Boston	1860
BOS.6918	Monks, John P. - Howes, Osborn Double House	512-514 East Broadway	Boston	1845
BOS.6919	Kenney, John - Hersey, Francis C. Double House	516 East Broadway	Boston	1874
BOS.14295	James, George B. House	517 East Broadway	Boston	c 1868
BOS.6921	Bill, Abner D. House	520 East Broadway	Boston	c 1868
BOS.6884	Cathedral of Saint George	523 East Broadway	Boston	1872
BOS.14296	Jenney, Bernard House	525 East Broadway	Boston	1868
BOS.6922	Stover, Theophilus - Jenkins, Joshua House	534 East Broadway	Boston	c 1856
BOS.6885	South Boston Municipal Building	535 East Broadway	Boston	1913
BOS.6923	Souther, Henry - Gavin, Dr. Michael Freeborn House	546 East Broadway	Boston	1868
BOS.6924	Meins, Walter R. Row House	548 East Broadway	Boston	1871
BOS.6925	Vance, Samuel Row House	550 East Broadway	Boston	1871
BOS.6926		552 East Broadway	Boston	1871
BOS.6927		554 East Broadway	Boston	1871
BOS.6928		556 East Broadway	Boston	1871
BOS.6929	Warner, William D. Row House	558 East Broadway	Boston	1871

Inv. No.	Property Name	Street	Town	Year
BOS.6930		560 East Broadway	Boston	1871
BOS.6931	Warner, William D. Row House	562 East Broadway	Boston	1871
BOS.6886	Driscoll, Mitchell J. House	585 East Broadway	Boston	1892
BOS.6887		705 East Broadway	Boston	1859
BOS.6888		707 East Broadway	Boston	1859
BOS.6889		709 East Broadway	Boston	1859
BOS.6890		711 East Broadway	Boston	1859
BOS.6932	Pilgrim Hall	732-734 East Broadway	Boston	1890
BOS.6933	Handy, Lottie G. Row House	766 East Broadway	Boston	1874
BOS.6891	Warner, William H. House	767 East Broadway	Boston	c 1858
BOS.6934	Cobb Lime Company Row House	768 East Broadway	Boston	1874
BOS.6935	Cobb Lime Company Row House	770 East Broadway	Boston	1874
BOS.6892	Scott, John M. - Bixby, Sampson L. Double House	771-773 East Broadway	Boston	c 1867
BOS.6936	Cobb Lime Company Row House	772 East Broadway	Boston	1874
BOS.6937	Cobb Lime Company Row House	774 East Broadway	Boston	1874
BOS.6893	Scott, John M. Double House	775-777 East Broadway	Boston	1868
BOS.6938	Whitney, William A. House	776 East Broadway	Boston	1875
BOS.6939	Whitney, William A. House	778 East Broadway	Boston	1873
BOS.6894	Scott, John M. Double House	779-781 East Broadway	Boston	1868
BOS.6940	Hawes, Walter E. House	780 East Broadway	Boston	1870
BOS.6941	Gray, Solomon S. - Dana, Otis D. Stable	786 East Broadway	Boston	r 1870
BOS.6895	Scott, John M. House	787 East Broadway	Boston	c 1862
BOS.6942	Gray, Solomon S. - Dana, Otis D. House	788 East Broadway	Boston	c 1866
BOS.6896	Loring, Harrison House	789 East Broadway	Boston	1865
BOS.6897	Clark, William H. Row House	797 East Broadway	Boston	1868
BOS.6898	Moore, Alexander Row House	799 East Broadway	Boston	1868
BOS.6899	Souther, Joaquim Row House	801 East Broadway	Boston	1868
BOS.6900	Souther, John T. Row House	803 East Broadway	Boston	1868
BOS.6901	Brown, Albert Row House	805 East Broadway	Boston	1868
BOS.6902	Brown, Albert Row House	807 East Broadway	Boston	1868
BOS.6903	Hall, Leonard Row House	809 East Broadway	Boston	1868
BOS.6904	Canfield, Rev. C. T. Row House	811 East Broadway	Boston	1868
BOS.6905	Murray, Mary E. T. Row House	813 East Broadway	Boston	c 1870
BOS.6906	Tay, Rodney S. Row House	815 East Broadway	Boston	c 1870
BOS.6907	Gibbs, Horace G. Row House	817 East Broadway	Boston	c 1870
BOS.6908	Baker, Mary Row House	819 East Broadway	Boston	c 1870
BOS.6909	Baker, Charles H. Row House	821 East Broadway	Boston	c 1870

Inv. No.	Property Name	Street	Town	Year
BOS.6910	Bemis, Emily Row House	823 East Broadway	Boston	c 1870
BOS.6911	Hall, Francis D. Row House	825 East Broadway	Boston	c 1870
BOS.6912	Scott, John M. Row House	827 East Broadway	Boston	c 1870
BOS.6943	Whiton, Lewis C. House	838 East Broadway	Boston	c 1869
BOS.15326	Saint Brigid Roman Catholic Church Rectory	845 East Broadway	Boston	c 1917
BOS.15327	Saint Brigid Roman Catholic Church School	866 East Broadway	Boston	1964
BOS.6944		898-904 East Broadway	Boston	1886
BOS.6914	Gleeson, James A. Double House	901-903 East Broadway	Boston	c 1865
BOS.6915	Clark, Henry S. Three Decker	925 East Broadway	Boston	1907
BOS.6916	Blake, Samuel House	927-931R East Broadway	Boston	1835
BOS.6945	Collins, James Mansion	928 East Broadway	Boston	1867
BOS.6946	Collins, James Row House	934 East Broadway	Boston	1884
BOS.6947	Collins, James Row House	936 East Broadway	Boston	1884
BOS.6948	Collins, James Row House	938 East Broadway	Boston	1884
BOS.6949	Collins, James Row House	940 East Broadway	Boston	1884
BOS.6950	Collins, James Row House	942 East Broadway	Boston	1884
BOS.6917	Taylor, William H. House	945 East Broadway	Boston	1939
BOS.6951	Falvey, J. H. House	948 East Broadway	Boston	r 1900
BOS.13299		344 East Eighth St	Boston	c 1884
BOS.13300	Graf, Emily House	348 East Eighth St	Boston	r 1885
BOS.13301	Stapleton, B. J. and E. House	350 East Eighth St	Boston	r 1885
BOS.13302	Towle, A. J. and William House	352 East Eighth St	Boston	r 1885
BOS.13303	Devine - Wenzler House	354 East Eighth St	Boston	r 1885
BOS.13304	McCarthy - Clark House	356 East Eighth St	Boston	r 1885
BOS.13305	Grafter, William House	358 East Eighth St	Boston	r 1885
BOS.13306	Barth, Sophie A. House	360 East Eighth St	Boston	r 1885
BOS.13307		362 East Eighth St	Boston	r 1980
BOS.13308		364 East Eighth St	Boston	r 1980
BOS.13309		366 East Eighth St	Boston	r 1885
BOS.6966	Arion Hall - German-American Singing Society	367 East Eighth St	Boston	1892
BOS.13310		368 East Eighth St	Boston	r 1885
BOS.13311		370 East Eighth St	Boston	r 1885
BOS.13312		372 East Eighth St	Boston	r 1885
BOS.13313		374 East Eighth St	Boston	r 1885
BOS.13314		412 East Eighth St	Boston	r 1890
BOS.13315		413 East Eighth St	Boston	r 1890
BOS.13316		414 East Eighth St	Boston	r 1890
BOS.13317		415 East Eighth St	Boston	r 1890

Inv. No.	Property Name	Street	Town	Year
BOS.13318		417 East Eighth St	Boston	r 1865
BOS.13319		419 East Eighth St	Boston	r 1865
BOS.13320		421 East Eighth St	Boston	r 1865
BOS.13321		428 East Eighth St	Boston	r 1880
BOS.6963	Ellis, Albert House	582 1/2 East Eighth St	Boston	c 1845
BOS.6967	Spinney, Samuel R. House	601 East Eighth St	Boston	1853
BOS.7087	Sharp, John H. House	673 East Eighth St	Boston	1858
BOS.7088	Sharp, John H. House	675 East Eighth St	Boston	1858
BOS.7089	Sharp, John H. House	679 East Eighth St	Boston	1858
BOS.6964	Johnson, Samuel W. Three Decker	690 East Eighth St	Boston	1909
BOS.6965	Perry, Oliver Hazard Grammar School	770 East Eighth St	Boston	1904
BOS.13322		390 East Fifth St	Boston	r 1865
BOS.13323	Thompson, A. D. House	391 East Fifth St	Boston	r 1865
BOS.13324		392 East Fifth St	Boston	r 1865
BOS.13325	Manson, George H. House	393 East Fifth St	Boston	r 1865
BOS.13326		395 East Fifth St	Boston	r 1865
BOS.13327		397 East Fifth St	Boston	r 1865
BOS.6793	Perkins Institute for the Blind Rental Housing	422-424 East Fifth St	Boston	1893
BOS.6794	Emerson, Jacob House	562 East Fifth St	Boston	1847
BOS.6795	Hawes, John House	568 East Fifth St	Boston	c 1805
BOS.6796	Hathaway, Hiram F. House	611 East Fifth St	Boston	c 1852
BOS.6797	Masury, Joseph Double House	620-622 East Fifth St	Boston	1848
BOS.6798	Wheaton, Timothy Building	779 East Fifth St	Boston	1886
BOS.6800	Collins, James Apartment Block	828-834 East Fifth St	Boston	c 1880
BOS.6801	Harriss, John A. House	847 East Fifth St	Boston	c 1852
BOS.6802	Griffith, Mary A. - Butler, N. House	848 East Fifth St	Boston	c 1870
BOS.6803	Gleason, Michael House	855 East Fifth St	Boston	c 1856
BOS.12994		East First St	Boston	r 1950
BOS.12991		564 East First St	Boston	1919
BOS.12992	Grueby Faience Company Work Shop	566 East First St	Boston	c 1899
BOS.12993		570 East First St	Boston	r 1920
BOS.6752	Condit Electrical Company Building	603-609 East First St	Boston	1915
BOS.6753	Boston Elevated Railway South Boston Power Station	696 East First St	Boston	1911
BOS.6754	Walworth Radiator Manufacturing Company Warehouse	881 East First St	Boston	1904
BOS.9258	Lincoln Park	East Fourth St	Boston	c 1860
BOS.6765	Gate of Heaven Roman Catholic Church	0 East Fourth St	Boston	1862

Inv. No.	Property Name	Street	Town	Year
BOS.13328	Bird - Lord House	469 East Fourth St	Boston	c 1852
BOS.13329		470 East Fourth St	Boston	r 1865
BOS.13330	Bird - Barstow House	471 East Fourth St	Boston	c 1852
BOS.13331		472 East Fourth St	Boston	r 1865
BOS.13332		474 East Fourth St	Boston	r 1865
BOS.13333		476 East Fourth St	Boston	r 1890
BOS.13334		478 East Fourth St	Boston	r 1890
BOS.6763	Bird, John Hawes House	480-482 East Fourth St	Boston	1830
BOS.6764	Mount Washington Female Institute	484 East Fourth St	Boston	c 1874
BOS.13335	Burton, H. J. and R. A. House	491 East Fourth St	Boston	r 1865
BOS.13336		493 East Fourth St	Boston	r 1865
BOS.13337		494 East Fourth St	Boston	r 1980
BOS.13338		495 East Fourth St	Boston	r 1865
BOS.13339		496 East Fourth St	Boston	r 1980
BOS.13340		497 East Fourth St	Boston	r 1865
BOS.13341	Gerrish, Thomas P. Double House	498 East Fourth St	Boston	c 1852
BOS.13342	Pierce, William P. Double House	500 East Fourth St	Boston	c 1852
BOS.13343	Bowen, H. B. House	502 East Fourth St	Boston	c 1852
BOS.13344	Spaulding, Ira D. Double House	504 East Fourth St	Boston	r 1855
BOS.13345	Kingman, George W. Double House	506 East Fourth St	Boston	r 1865
BOS.13346	Luttet, William House	508 East Fourth St	Boston	c 1852
BOS.13347	Cole - Lewis House	510 East Fourth St	Boston	c 1852
BOS.13348	Wright, Albert J. Jr. House	512 East Fourth St	Boston	c 1852
BOS.13349	Leonard, Isaac M. House	514 East Fourth St	Boston	c 1852
BOS.13350	Clapp, Howard House	523 East Fourth St	Boston	r 1865
BOS.13351	Greely, Phillip House	525 East Fourth St	Boston	r 1865
BOS.13352	Clapp, Howard House	527 East Fourth St	Boston	r 1865
BOS.13353		528 East Fourth St	Boston	c 1852
BOS.13354		529 East Fourth St	Boston	r 1865
BOS.13355		530 East Fourth St	Boston	c 1852
BOS.13356		531 East Fourth St	Boston	r 1865
BOS.15317	Gate of Heaven Roman Catholic Church Rectory	606 East Fourth St	Boston	1958
BOS.15318	Gate of Heaven Roman Catholic Church School	609 East Fourth St	Boston	1922
BOS.6766	Gate of Heaven Roman Catholic Church	615 East Fourth St	Boston	c 1896
BOS.6775	Boston Police Station #12 and Jail	675 East Fourth St	Boston	1874
BOS.6776	Boston Fire Station Engine #2 - Ladder #19	680 East Fourth St	Boston	1932
BOS.9230	Boston Fire Station #2 Hose Drying Tower	680 East Fourth St	Boston	1932
BOS.6767	Sawyer, Oliver T. House	742 East Fourth St	Boston	1860

Inv. No.	Property Name	Street	Town	Year
BOS.6768	Scanlon, Mary A. Row House	746 East Fourth St	Boston	c 1871
BOS.6769	Pollard, Rev. Andrew Row House	748 East Fourth St	Boston	c 1871
BOS.6770	Miller, Ellen S. Row House	750 East Fourth St	Boston	c 1871
BOS.6771	Becker, J. M. Row House	752 East Fourth St	Boston	c 1871
BOS.6772	Round, Julius S. Row House	754 East Fourth St	Boston	c 1871
BOS.6773	Ring, James - Underwood, Frank H. Double House	756-758 East Fourth St	Boston	c 1865
BOS.6774	Harding, William H. - Bowles, Hiram Double House	760-762 East Fourth St	Boston	c 1865
BOS.6777	Webb Row House	789 East Fourth St	Boston	c 1871
BOS.6778	Flanders - Crawford Row House	791 East Fourth St	Boston	c 1871
BOS.6779	Wilson, Joseph F. Row House	793 East Fourth St	Boston	c 1871
BOS.6780	Jessop, H. H. Row House	795 East Fourth St	Boston	c 1871
BOS.6781	Bird, Lewis J. Row House	797 East Fourth St	Boston	c 1871
BOS.6782	Marous, A. A. Row House	799 East Fourth St	Boston	c 1871
BOS.6783	McCouson, Ansel Three Decker	908 East Fourth St	Boston	1905
BOS.6784	Boyle, Patrick House	913 East Fourth St	Boston	1856
BOS.6785	Simpson, Daniel House	918-920 East Fourth St	Boston	1856
BOS.6791	Simpson, Daniel House	924 East Fourth St	Boston	c 1848
BOS.6787	Johnson, Samuel W. Three Decker	925 East Fourth St	Boston	1909
BOS.6788	Johnson, Samuel W. Three Decker	927 East Fourth St	Boston	1909
BOS.6789	Carmody, Elizabeth G. Three Decker	929 East Fourth St	Boston	1909
BOS.6790	Johnson, Samuel W. Three Decker	931 East Fourth St	Boston	1909
BOS.6792	Connolly, Mary C. Three Decker	936 East Fourth St	Boston	1892
BOS.6756	Bay State Iron Company Worker Housing	591 East Second St	Boston	c 1852
BOS.6757	Bay State Iron Company Worker Housing	593 East Second St	Boston	c 1852
BOS.6758	Bay State Iron Company Worker Housing	595 East Second St	Boston	c 1852
BOS.6759	Bay State Iron Company Worker Housing	597 East Second St	Boston	c 1852
BOS.6755	Leeds, Samuel House	687 East Second St	Boston	1834
BOS.13357		399 East Seventh St	Boston	1897
BOS.13358		401 East Seventh St	Boston	1897
BOS.13360		403 East Seventh St	Boston	1897
BOS.13359		404 East Seventh St	Boston	r 1865
BOS.13362		405 East Seventh St	Boston	1897
BOS.13361		406 East Seventh St	Boston	r 1865
BOS.6953	Howard, Thomas and Henry Three Decker	447 East Seventh St	Boston	1903
BOS.6954	Meyer, Conrad Double Three Decker	448-450 East Seventh St	Boston	1892
BOS.6955	Lappen, James House	492 East Seventh St	Boston	c 1852

Inv. No.	Property Name	Street	Town	Year
BOS.6956	Hatch, Converse R. Row House	602 East Seventh St	Boston	1869
BOS.6957	Ham, Alonzo G. Row House	604 East Seventh St	Boston	1869
BOS.6958	Whitridge, Thomas Row House	606 East Seventh St	Boston	1869
BOS.6959	Lewis, Albert G. Row House	608 East Seventh St	Boston	1869
BOS.6960	Kimball, Frank H. Row House	610 East Seventh St	Boston	1869
BOS.6961	Small, Maria A. Row House	612 East Seventh St	Boston	1869
BOS.6962	Spofford, Charles Row House	614 East Seventh St	Boston	1869
BOS.6804	Capen Primary School	518 East Sixth St	Boston	1871
BOS.6805	Higgins, William R. Row House	586 East Sixth St	Boston	c 1872
BOS.6806	Wright, Fred S. Row House	588 East Sixth St	Boston	c 1872
BOS.6807	Woodward, Elliot W. Row House	590 East Sixth St	Boston	c 1872
BOS.6808	Shaw, Jeremiah Row House	592 East Sixth St	Boston	c 1872
BOS.6809	Tufts, C. Row House	594 East Sixth St	Boston	c 1872
BOS.6810	Hersey, Francis C. Row House	596 East Sixth St	Boston	c 1872
BOS.6811	Hersey, Francis C. Row House	598 East Sixth St	Boston	c 1872
BOS.6812	Hersey, Francis C. Row House	600 East Sixth St	Boston	c 1872
BOS.6813	Wheaton, Timothy House	814 East Sixth St	Boston	1871
BOS.6814	Atlantic House Hotel	868 East Sixth St	Boston	c 1870
BOS.6760	Locke, Richard House	411R East Third St	Boston	c 1828
BOS.6761	Burnham, Choate Elementary School	486 East Third St	Boston	1892
BOS.6762	Wade, Ellen M. House	512 East Third St	Boston	r 1895
BOS.12996	King Terminal Pump House - Electrical Cabinet	Elkins St	Boston	r 1920
BOS.12995	Puritan Wine - Northern Industrial Chemical Co.	7 Elkins St	Boston	1916
BOS.12997	King Terminal No. 11 - Kohnstamm, H. and Company	11 Elkins St	Boston	1915
BOS.12998	Shaw, John and Company Chemical Works	15 Elkins St	Boston	r 1920
BOS.12999		21 Elkins St	Boston	r 1920
BOS.13000	King Terminal No. 7	22 Elkins St	Boston	1927
BOS.810	Hawes Cemetery	Emerson St	Boston	1817
BOS.6971		133 Emerson St	Boston	r 1905
BOS.6968		172 Emerson St	Boston	c 1830
BOS.6969		176 Emerson St	Boston	r 1850
BOS.6970		204 Emerson St	Boston	r 1830
BOS.6972	Furbush, Milo House	249 Emerson St	Boston	1844
BOS.6973	Hotel Eaton	309-311 Emerson St	Boston	1887
BOS.6974	Pierce, Samuel H. L. House	313 Emerson St	Boston	1862
BOS.15323	Blessed Sacrament Roman Catholic Chapel	9 F St	Boston	1886
BOS.6975	Kent, Barker B. Double House	92-96 F St	Boston	c 1868

Inv. No.	Property Name	Street	Town	Year
BOS.6976	Kent, Barker B. Double House	98-100 F St	Boston	c 1852
BOS.6977	Pond, Adams and Basco Row House	114 F St	Boston	r 1870
BOS.6978	Pond, Adams and Basco Row House	116 F St	Boston	r 1870
BOS.6979	Gifford, Moses S. - Goodwin, Nathaniel Row House	118 F St	Boston	r 1870
BOS.6980	Gifford, Moses S. - Goodwin, Nathaniel Row House	120 F St	Boston	r 1870
BOS.6981	Gifford, Goodwin and Baker Row House	122 F St	Boston	r 1870
BOS.6982	Gifford, Goodwin and Baker Row House	124 F St	Boston	r 1870
BOS.12982	Boston Market Terminal Freight House #12	31 Fargo St	Boston	1928
BOS.12983		51-53 Fargo St	Boston	1920
BOS.12984		80 Fargo St	Boston	1917
BOS.5530	Boston Wharf Company Wool Warehouse	11-15 Farnsworth St	Boston	1893
BOS.5531	Boston Wharf Company Building	12-22 Farnsworth St	Boston	1917
BOS.15348	Farnsworth Street Garage	17-31 Farnsworth St	Boston	1987
BOS.5532	Boston Wharf Company Building	24-32 Farnsworth St	Boston	c 1895
BOS.5533	Boston Wharf Company Building	33-39 Farnsworth St	Boston	1909
BOS.5534	Boston Wharf Company Building	34-36 Farnsworth St	Boston	1909
BOS.5535	Boston Wharf Company Building	41-45 Farnsworth St	Boston	1908
BOS.5536	Boston Wharf Company Building	44-54 Farnsworth St	Boston	1915
BOS.5537	Boston Wharf Company Warehouse	47-53 Farnsworth St	Boston	1895
BOS.9256	Marine Park	Farragut Rd	Boston	c 1883
BOS.6983		65 Farragut Rd	Boston	r 1905
BOS.6984	Higgins, William J. Three Decker	73 Farragut Rd	Boston	1908
BOS.6985	Higgins, William J. Three Decker	75 Farragut Rd	Boston	1908
BOS.6986	Higgins, William J. Three Decker	77 Farragut Rd	Boston	1908
BOS.12964	Subaru Distributors Dealership	FID Kennedy Way	Boston	c 1980
BOS.12963	Au Bon Pain Offices	19 FID Kennedy Way	Boston	c 1980
BOS.12965	Boston Army Supply Base - Building 16	25 FID Kennedy Way	Boston	c 1940
BOS.6987	Saint Peter Lithuanian Roman Catholic Church	75 Flaherty Way	Boston	1901
BOS.9152	Fort Point Channel	Fort Point Channel	Boston	r 1850
BOS.9153	Fort Point Channel Bulkheads	Fort Point Channel	Boston	r 1850
BOS.9241	Fort Point Channel Bridge	Fort Point Channel	Boston	1898
BOS.9514	South Boston Sea Wall	Fort Point Channel	Boston	
BOS.13363		1 Fourth St Place	Boston	r 1865
BOS.13364		2 Fourth St Place	Boston	r 1865
BOS.13365		3 Fourth St Place	Boston	r 1865
BOS.13366		31 G St	Boston	c 1852

Inv. No.	Property Name	Street	Town	Year
BOS.13367		33 G St	Boston	c 1852
BOS.13368		34 G St	Boston	c 1852
BOS.13369		35 G St	Boston	c 1852
BOS.13370		36 G St	Boston	c 1852
BOS.13371		37 G St	Boston	r 1865
BOS.13372	Cook, Samuel House	39 G St	Boston	r 1865
BOS.13373	Kent, Barker B. House	41 G St	Boston	r 1865
BOS.13374	Jenkins, Reuben Y. Double House	43 G St	Boston	r 1865
BOS.13375	Jenkins, Reuben Y. Double House	45 G St	Boston	r 1865
BOS.13376		46 G St	Boston	1834
BOS.13377	Elms, James C. Double House	47 G St	Boston	r 1865
BOS.13378		48 G St	Boston	1834
BOS.13379	Whitman - Tucker Double House	49 G St	Boston	r 1865
BOS.13380		50 G St	Boston	r 1865
BOS.13381	Standish - Burnham Double House	51 G St	Boston	r 1865
BOS.6988	Briggs, Harrison O. House	52 G St	Boston	c 1852
BOS.13382	Fraught, George N. Double House	53 G St	Boston	r 1865
BOS.13383	Peterson, Capt. Peter House	54 G St	Boston	c 1861
BOS.13384	Smith, George P. Double House	55 G St	Boston	r 1865
BOS.13385		56 G St	Boston	c 1861
BOS.13386	Ellis, George W. Double House	57 G St	Boston	r 1865
BOS.13387		58 G St	Boston	c 1861
BOS.13388	Neilson, William House	59 G St	Boston	r 1865
BOS.13389		60 G St	Boston	r 1865
BOS.13390		60A G St	Boston	r 1865
BOS.13391	Johson - Hills Double House	61 G St	Boston	r 1865
BOS.13392		62 G St	Boston	r 1865
BOS.13393	Noyes, Elisha Double House	63 G St	Boston	r 1865
BOS.13394		64 G St	Boston	r 1865
BOS.13395	Wilson, Harvey Double House	65 G St	Boston	r 1865
BOS.13396		66 G St	Boston	r 1865
BOS.13397		67 G St	Boston	r 1890
BOS.13398		68 G St	Boston	r 1865
BOS.13399		69 G St	Boston	r 1890
BOS.13400		70 G St	Boston	r 1865
BOS.13401		72 G St	Boston	r 1865
BOS.13402		73 G St	Boston	r 1880
BOS.13403	Wallackas Meats	73A G St	Boston	r 1905

Inv. No.	Property Name	Street	Town	Year
BOS.13404		74 G St	Boston	r 1865
BOS.13405	Copeland, Joseph House	75 G St	Boston	c 1860
BOS.13407		76 G St	Boston	r 1865
BOS.6989	Harding, Lemon P. House	80 G St	Boston	c 1868
BOS.6990	Harding, Lemon P. House	82 G St	Boston	c 1853
BOS.13408		84 G St	Boston	r 1880
BOS.6991	Connor, James Row House	88 G St	Boston	c 1865
BOS.6992	Connor, James Row House	90 G St	Boston	c 1865
BOS.6993	Connor, James Row House	92 G St	Boston	c 1865
BOS.6994	Connor, James Row House	94 G St	Boston	c 1874
BOS.6995	South Boston High School	95 G St	Boston	1901
BOS.13409		96 G St	Boston	r 1865
BOS.13410		98 G St	Boston	r 1880
BOS.13411		100 G St	Boston	r 1890
BOS.13412		102 G St	Boston	r 1890
BOS.13413		104 G St	Boston	r 1865
BOS.13414		106 G St	Boston	r 1865
BOS.13415		108 G St	Boston	r 1865
BOS.6996	Johnson, Samuel W. Two-Family House	111 G St	Boston	1911
BOS.13416	Johnson, J. L. and S. J. Three Decker	115 G St	Boston	r 1895
BOS.13417		116 G St	Boston	r 1865
BOS.13418		118 G St	Boston	r 1865
BOS.13419	Johnson, J. L. and S. J. Three Decker	119 G St	Boston	r 1895
BOS.13420		120 G St	Boston	r 1865
BOS.13421	James, Francis Double House	121 G St	Boston	r 1880
BOS.13422		122 G St	Boston	r 1880
BOS.13423	Wyman, Charles F. Double House	123 G St	Boston	r 1880
BOS.13424		124 G St	Boston	r 1880
BOS.13425	Reardon, John A. Double House	125 G St	Boston	r 1880
BOS.13426		126 G St	Boston	r 1880
BOS.13427	McGrath, Mary E. Double House	127 G St	Boston	r 1880
BOS.13428		128 G St	Boston	r 1880
BOS.13429		129 G St	Boston	r 1880
BOS.13430		130 G St	Boston	r 1880
BOS.13431		131 G St	Boston	r 1890
BOS.13432		Gates St	Boston	r 1925
BOS.13433		4 Gates St	Boston	r 1865
BOS.13434	Gleason, Alpheus House	5 Gates St	Boston	r 1865

Inv. No.	Property Name	Street	Town	Year
BOS.13435		6 Gates St	Boston	r 1865
BOS.13436		7 Gates St	Boston	r 1865
BOS.13437	Carlton - Dean Double House	8 Gates St	Boston	c 1852
BOS.13438	Webber, William C. Double House	9 Gates St	Boston	r 1865
BOS.13439	Whiton - Sears Double House	10 Gates St	Boston	c 1852
BOS.13440		11 Gates St	Boston	r 1865
BOS.13441		12 Gates St	Boston	r 1865
BOS.13442		13 Gates St	Boston	r 1865
BOS.13443		14 Gates St	Boston	r 1865
BOS.13444		15 Gates St	Boston	r 1865
BOS.13445		16 Gates St	Boston	r 1865
BOS.13446		17 Gates St	Boston	r 1865
BOS.13447		18 Gates St	Boston	r 1865
BOS.13448		19 Gates St	Boston	r 1865
BOS.13449		20 Gates St	Boston	r 1865
BOS.13450		21 Gates St	Boston	r 1880
BOS.6997	Smith, James House	22 Gates St	Boston	c 1875
BOS.13451		23 Gates St	Boston	r 1880
BOS.13452		26 Gates St	Boston	r 1865
BOS.15227	Saint Monica's Roman Catholic Church Rectory	70 Gen. Wm. Devine Way	Boston	1955
BOS.6998	Power, Jacob P. House	98 H St	Boston	r 1880
BOS.6999	Power, Jacob P. House	100 H St	Boston	r 1880
BOS.7000	Stetson, Alpheus M. Three Decker	174 H St	Boston	c 1885
BOS.7001	Souther, Henry Row House	1 H Street Pl	Boston	r 1880
BOS.7002	Souther, Henry Row House	2 H Street Pl	Boston	r 1880
BOS.7003	Souther, Henry Row House	3 H Street Pl	Boston	r 1880
BOS.12966	Boston Army Supply Base - Building 19	6 Harbor St	Boston	c 1940
BOS.7004		36 I St	Boston	1905
BOS.7005	Gray, Solomon S. Row House	86 I St	Boston	c 1874
BOS.7006	Gray, Solomon S. Row House	88 I St	Boston	c 1874
BOS.7007	Gray, Solomon S. Row House	90 I St	Boston	c 1874
BOS.7008	Stark, Hannah Row House	92 I St	Boston	c 1884
BOS.7009	Stark, Hannah Row House	94 I St	Boston	c 1884
BOS.7010	Stark, Hannah Row House	96 I St	Boston	c 1884
BOS.7011	Stark, Hannah Row House	98 I St	Boston	c 1884
BOS.7012	Stark, Hannah Row House	100 I St	Boston	c 1884
BOS.7013	Stark, Hannah Row House	102 I St	Boston	c 1884
BOS.7014	Saint Agnes Convent - Gate of Heaven Church	127 I St	Boston	1879

Inv. No.	Property Name	Street	Town	Year
BOS.7015	Griffin Brothers Row House	151 I St	Boston	c 1874
BOS.7016	Griffin Brothers Row House	153 I St	Boston	c 1874
BOS.7017	Griffin Brothers Row House	155 I St	Boston	c 1874
BOS.7018	Griffin Brothers Row House	157 I St	Boston	c 1874
BOS.13453		1 Jason Terr	Boston	r 1865
BOS.13454		2 Jason Terr	Boston	r 1865
BOS.13455		3 Jason Terr	Boston	r 1865
BOS.13456		4 Jason Terr	Boston	r 1865
BOS.7019		10-12 Jenkins St	Boston	c 1852
BOS.13002	Goller, Allen Shoe Factory	60 K St	Boston	r 1920
BOS.13003	Dimes, Richard Silversmith Company	72 K St	Boston	r 1920
BOS.13004	New England Annealing and Tool Company Building	80 K St	Boston	r 1920
BOS.7020	Hawes, The	278 K St	Boston	r 1895
BOS.7032	Beckler, Daniel W. Row House	283 K St	Boston	1870
BOS.7033	Beckler, Daniel W. Row House	285 K St	Boston	1870
BOS.7034	Beckler, Daniel W. Row House	287 K St	Boston	1870
BOS.7035	Beckler, Daniel W. Row House	289 K St	Boston	1870
BOS.7036	Beckler, Daniel W. Row House	291 K St	Boston	1870
BOS.7037	Beckler, Daniel W. Row House	293 K St	Boston	1870
BOS.7038	Beckler, Daniel W. Row House	295 K St	Boston	1870
BOS.7039	Beckler, Daniel W. Row House	297 K St	Boston	1870
BOS.7021	James, Benjamin - James, George B. Row House	298 K St	Boston	1872
BOS.7040	Beckler, Daniel W. Row House	299 K St	Boston	1870
BOS.7022	James, Benjamin - James, George B. Row House	300 K St	Boston	1872
BOS.7041	Beckler, Daniel W. Row House	301 K St	Boston	1870
BOS.7023	James, Benjamin - James, George B. Row House	302 K St	Boston	1872
BOS.7042	Beckler, Daniel W. Row House	303 K St	Boston	1870
BOS.7024	James, Benjamin - James, George B. Row House	304 K St	Boston	1872
BOS.7043	Beckler, Daniel W. Row House	305 K St	Boston	1870
BOS.7025	James, Benjamin - James, George B. Row House	306 K St	Boston	1872
BOS.7026	Beckler, Daniel W. Row House	308 K St	Boston	1872
BOS.7027	Berry, David A. House	318 K St	Boston	c 1870
BOS.7028	Berry, David A. Row House	354 K St	Boston	c 1871
BOS.7029	Russell, Sheppard Row House	356 K St	Boston	c 1871

Inv. No.	Property Name	Street	Town	Year
BOS.7030	Berry, David A. Row House	358 K St	Boston	c 1871
BOS.7031	Rodgers, Josephine W. Row House	360 K St	Boston	c 1871
BOS.7044	O'Brien, Thomas House	372 K St	Boston	1853
BOS.7045	Goodnow, Jane H. House	384 K St	Boston	c 1858
BOS.7046	Mullay, John House	390 K St	Boston	1859
BOS.7047	Johnson, Samuel W. Three Decker	415 K St	Boston	1911
BOS.7054	Reardon, John W. House	7 Knowlton St	Boston	1909
BOS.7048	Eaton, William T. Apartment Building	92-96 L St	Boston	1884
BOS.7050	Eaton, William T. Row House	98 L St	Boston	1884
BOS.7051	Eaton, William T. Row House	100 L St	Boston	1884
BOS.7052	Eaton, William T. Apartment Building	102-108 L St	Boston	1884
BOS.7055	Flint, H. G. Three Decker	206 L St	Boston	1902
BOS.7056	Flint, H. G. Three Decker	208 L St	Boston	1902
BOS.7057		2 Leeds St	Boston	c 1863
BOS.7058		4 Leeds St	Boston	c 1863
BOS.7059		6 Leeds St	Boston	c 1863
BOS.13457	Wright, Frederick S. Double House	1 Linden St	Boston	c 1860
BOS.13458	James, Elisha F. Double House	2 Linden St	Boston	c 1860
BOS.13459	Wright, Frederick S. Double House	3 Linden St	Boston	c 1860
BOS.13460	Pettingill Double House	4 Linden St	Boston	c 1860
BOS.13461	James, Benjamin Double House	5 Linden St	Boston	c 1860
BOS.13462	Bowen, Hosea B. Double House	6 Linden St	Boston	c 1860
BOS.13463	Neale, Mary A. Double House	7 Linden St	Boston	c 1860
BOS.13464	James, Edward P. Double House	8 Linden St	Boston	c 1860
BOS.13465	Shales, Daniel House	9 Linden St	Boston	1863
BOS.13466	Hasting, Zorilda House	10 Linden St	Boston	1863
BOS.13467	Covington, Leonard House	11 Linden St	Boston	1863
BOS.13468	Richardson, Mary A. House	12 Linden St	Boston	1863
BOS.13469	Davis, Mary D. House	13 Linden St	Boston	1863
BOS.13470	Jenkins, Isaac N. House	14 Linden St	Boston	1863
BOS.13471	Patch, Charles F. House	15 Linden St	Boston	1863
BOS.13472	James, Benjamin House	16 Linden St	Boston	1863
BOS.13473	Hoyt, Anna M. House	17 Linden St	Boston	1863
BOS.13474	Foster, Dara S. House	18 Linden St	Boston	1863
BOS.13475	Kemp House	19 Linden St	Boston	1863
BOS.13476	Knapp, H. C. House	20 Linden St	Boston	1863
BOS.7060	Winchester, William W. House	21 Linden St	Boston	c 1863
BOS.13477		23 Linden St	Boston	1863

Inv. No.	Property Name	Street	Town	Year
BOS.7061	Burrell, Adoniram Row House	47 M St	Boston	1872
BOS.7062	Burrell, Adoniram Row House	49 M St	Boston	1872
BOS.7063	Burrell, Adoniram Row House	51 M St	Boston	1872
BOS.7064	Burrell, Adoniram Row House	53 M St	Boston	1872
BOS.7065	Ford, Catherine House	99-101 M St	Boston	c 1862
BOS.7066	Carmody, Mary J. Three Decker	177 M St	Boston	1910
BOS.7067	Carmody, Mary J. Three Decker	179 M St	Boston	1910
BOS.7068	Carmody, Mary J. Three Decker	181 M St	Boston	1910
BOS.5576	Boston Wharf Company Wool Warehouse	10 Melcher St	Boston	c 1903
BOS.9511	Boston Wharf Company Roof Sign	10 Melcher St	Boston	
BOS.15349	Boston Wharf Company Offices	10 Melcher St	Boston	1905
BOS.15350	New England Confectionary Company	11-17 Melcher St	Boston	1902
BOS.15351	New England Confectionary Company	19-27 Melcher St	Boston	1902
BOS.15352	New England Confectionary Company	29-37 Melcher St	Boston	1902
BOS.5538	Boston Wharf Company Building	49 Melcher St	Boston	1910
BOS.5539	Boston Wharf Company Building	51-61 Melcher St	Boston	1916
BOS.5540	French, Shriner and Urner Shoe Manufacturing Co.	63 Melcher St	Boston	1909
BOS.5542	Boston Wharf Company Warehouse	18-22 Midway St	Boston	c 1912
BOS.5549	Boston Wharf Company Warehouse	76-82 Midway St	Boston	1905
BOS.7069	Hemmen, Herman Double House	46-48 N St	Boston	1896
BOS.7071	Beckler, Daniel W. Row House	58 N St	Boston	1887
BOS.7072	Beckler, Daniel W. Row House	60 N St	Boston	1887
BOS.7073	Beckler, Daniel W. Row House	62 N St	Boston	1887
BOS.6913	Saint Brigid Roman Catholic Church	96 N St	Boston	1933
BOS.15328	Saint Brigid Roman Catholic Church Convent	100 N St	Boston	1966
BOS.7074	Stratton, Henry B. House	110-112 N St	Boston	1882
BOS.13478	Hayes, E. House	2 National St	Boston	r 1880
BOS.13479	Leonard, N. House	4 National St	Boston	r 1865
BOS.13480	Tappan, F. House	6 National St	Boston	r 1880
BOS.13481	Romosky, Anna House	8 National St	Boston	r 1865
BOS.13482	Sturtevant, George W. House	10 National St	Boston	r 1865
BOS.13483	Tripp, Abner L. House	12 National St	Boston	r 1865
BOS.13484	Stratton, Henry B. House	14 National St	Boston	r 1865
BOS.13485	Stratton, Henry B. - Roche House	18 National St	Boston	r 1890
BOS.5550	Boston Wharf Company Building	1 Necco Ct	Boston	1907
BOS.5551	Boston Wharf Company Building	3 Necco Ct	Boston	1907
BOS.15353	New England Confectionary Company	5 Necco Ct	Boston	1907

Inv. No.	Property Name	Street	Town	Year
BOS.15354	New England Confectionary Company	6 Necco Ct	Boston	1907
BOS.15355	Necco Street Garage	10 Necco St	Boston	1992
BOS.9000	Northern Avenue Draw Bridge	Northern Ave	Boston	c 1907
BOS.12967	Boston Army Supply Base - Refrigeration Plant	Northern Ave	Boston	c 1980
BOS.12968	Boston Army Supply Base - Building 38	Northern Ave	Boston	c 1940
BOS.12971	Boston Army Supply Base - Building 18	Northern Ave	Boston	c 1940
BOS.15356	Northern Avenue Draw Bridge Tenders House	Northern Ave	Boston	1908
BOS.15229	Chapel of Our Lady of Good Voyage	65 Northern Ave	Boston	1952
BOS.7179	Commonwealth Pier Five	165 Northern Ave	Boston	1914
BOS.9252	South Boston Fish Pier	212-234 Northern Ave	Boston	c 1910
BOS.16589	South Boston Fish Pier - East Building	212-234 Northern Ave	Boston	c 1910
BOS.16590	South Boston Fish Pier - West Building	212-234 Northern Ave	Boston	c 1910
BOS.16591	South Boston Fish Pier - Fish Exchange Building	212-234 Northern Ave	Boston	c 1910
BOS.12969	Boston Army Supply Base - Building 56	300 Northern Ave	Boston	c 1940
BOS.12970	Boston Army Supply Base - Building 53	306 Northern Ave	Boston	c 1940
BOS.7075	Judkins, Charles S. - Robinson, L. Double House	84-86 O St	Boston	r 1880
BOS.6799	Pope, Benjamin Primary School	114 O St	Boston	1883
BOS.7076	Johnson, Samuel W. Three Decker	124 O St	Boston	1912
BOS.7077	Johnson, Samuel W. Three Decker	126 O St	Boston	1912
BOS.7078	Johnson, Samuel W. Three Decker	128 O St	Boston	1912
BOS.7079	Johnson, Samuel W. Three Decker	130 O St	Boston	1912
BOS.9654	Old Harbor Parkway - Old Colony Avenue	Old Colony Ave	Boston	1898
BOS.9655	Old Harbor Parkway - Old Harbor Village Footbridge	Old Colony Ave	Boston	1941
BOS.15226	Saint Monica's Roman Catholic Church	333 Old Colony Ave	Boston	1955
BOS.9645	Old Harbor Reservation Parkways	Old Harbor Pkwy	Boston	1883
BOS.9646	Old Harbor Reservation Parkway - Gardner Way	Old Harbor Pkwy	Boston	1883
BOS.9484		Old Harbor St	Boston	
BOS.7080	Carney Hospital Outpatient Building	4 Old Harbor St	Boston	1901
BOS.13486	Hatch - Powell House	17 Old Harbor St	Boston	r 1865
BOS.13487	Hatch - Stickney Double House	19 Old Harbor St	Boston	r 1880
BOS.13488	Hersey - Mosely Double House	23 Old Harbor St	Boston	r 1880
BOS.13489	Hersey, Charles H. Double House	25 Old Harbor St	Boston	r 1880
BOS.13490	Nickerson - Stapleton Double House	27 Old Harbor St	Boston	r 1880
BOS.13491	Moore, Nicholas F. House	37 Old Harbor St	Boston	r 1865
BOS.13492	Adamson - Crosby House	39 Old Harbor St	Boston	r 1865
BOS.7081	Carney Hospital Nurses Residence	40 Old Harbor St	Boston	1925
BOS.13493	Bassett - Moore House	41 Old Harbor St	Boston	r 1865

Inv. No.	Property Name	Street	Town	Year
BOS.13494	Bassett - Kellum House	43 Old Harbor St	Boston	r 1865
BOS.13495	Bassett - Lucas House	45 Old Harbor St	Boston	r 1865
BOS.13496	Wilson - Stout Double House	47 Old Harbor St	Boston	r 1865
BOS.13497	Thompson, William Double House	49 Old Harbor St	Boston	r 1865
BOS.13498	Bassett - Lockwood House	51 Old Harbor St	Boston	r 1865
BOS.13499	Bedlington, S. M. Double House	53 Old Harbor St	Boston	r 1865
BOS.13500		61 Old Harbor St	Boston	r 1880
BOS.13501	Bond, G. H. Double House	63 Old Harbor St	Boston	r 1880
BOS.13502	Simonds, J. F. Double House	65 Old Harbor St	Boston	r 1890
BOS.13503	Arnold, Jonathan M. Double House	67 Old Harbor St	Boston	r 1865
BOS.13504	Payson, Mary Double House	69 Old Harbor St	Boston	r 1865
BOS.13505	Morston, Frances E. House	71 Old Harbor St	Boston	r 1865
BOS.13506	Gill, Charles H. Double House	73 Old Harbor St	Boston	r 1865
BOS.13507	Pond, George F. Double House	75 Old Harbor St	Boston	r 1865
BOS.13508	Pond - Molloy Double House	77 Old Harbor St	Boston	r 1880
BOS.13509	Berry - Carroll Double House	79 Old Harbor St	Boston	r 1865
BOS.13510	Stetson, Alpheus M. House	80 Old Harbor St	Boston	r 1880
BOS.13511	Barstow, M. H. House	81 Old Harbor St	Boston	r 1880
BOS.13512	Suck, G. Frederick House	82 Old Harbor St	Boston	r 1865
BOS.13513	Fuller, C. House	83 Old Harbor St	Boston	r 1895
BOS.13514	Howard, T. and H. Three Decker	85 Old Harbor St	Boston	r 1895
BOS.13515	Boyson, William House	86 Old Harbor St	Boston	c 1852
BOS.13516	Howard, T. and H. Three Decker	87 Old Harbor St	Boston	r 1895
BOS.13517	Smith, Delia Three Decker	89 Old Harbor St	Boston	r 1895
BOS.13518	Kelly, James H. Three Decker	91 Old Harbor St	Boston	r 1895
BOS.13519	Plett, Chris F. Three Decker	93 Old Harbor St	Boston	r 1895
BOS.13520	Megan - Bowen House	99 Old Harbor St	Boston	r 1865
BOS.13521		100 Old Harbor St	Boston	r 1880
BOS.13522		101 Old Harbor St	Boston	r 1890
BOS.13523		102 Old Harbor St	Boston	r 1880
BOS.13524		103 Old Harbor St	Boston	r 1890
BOS.13525		104 Old Harbor St	Boston	r 1880
BOS.13526		106 Old Harbor St	Boston	r 1880
BOS.15330	Saint Peter Roman Catholic Church Rectory	50 Orton Marotta Way	Boston	1913
BOS.7082	Collins, James Row House	50 P St	Boston	1868
BOS.7083	Collins, James Row House	52 P St	Boston	1868
BOS.7084	Collins, James Row House	54 P St	Boston	1868
BOS.7085	Collins, James Row House	56 P St	Boston	1868

Inv. No.	Property Name	Street	Town	Year
BOS.7086	Collins, James Row House	58 P St	Boston	1868
BOS.13527		1 Pacific St	Boston	r 1865
BOS.13528	Tuckerman, W. I. House	2 Pacific St	Boston	r 1865
BOS.13529		3 Pacific St	Boston	r 1865
BOS.13530	Brown, Maria House	4 Pacific St	Boston	r 1865
BOS.13531		5 Pacific St	Boston	r 1865
BOS.13532	Wilson, Henry W. House	6 Pacific St	Boston	r 1865
BOS.13533		7 Pacific St	Boston	r 1865
BOS.13534	Wilson, Henry W. House	8 Pacific St	Boston	r 1865
BOS.13535		9 Pacific St	Boston	r 1880
BOS.13536	Wilson, Henry W. House	10 Pacific St	Boston	r 1865
BOS.13537		11 Pacific St	Boston	r 1880
BOS.13538	Wilson, Henry W. House	12 Pacific St	Boston	r 1865
BOS.13539		13 Pacific St	Boston	r 1865
BOS.13540	Parsons, Joseph C. House	14 Pacific St	Boston	r 1865
BOS.13541	Wilson, Henry W. House	16 Pacific St	Boston	r 1865
BOS.9512	Moakley, Evelyn Bridge	Seaport Blvd	Boston	1996
BOS.9237	Silver Street Bridge over Conrail	Silver St	Boston	1918
BOS.5561	Boston Wharf Company Building	15-21 Sleeper St	Boston	1911
BOS.5562	Boston Wharf Company Building	29-31 Sleeper St	Boston	1915
BOS.5563	Boston Wharf Company Building	35-37 Sleeper St	Boston	1911
BOS.5564	United Shoe Machine Corporation	51 Sleeper St	Boston	1929
BOS.7091	Washington Village Substation	Southampton St	Boston	1914
BOS.9236	Southampton Street Bridge over MBTA	Southampton St	Boston	1902
BOS.5565	Boston Wharf Company Iron Warehouse	5-9 Stillings St	Boston	1907
BOS.5566	Boston Wharf Company Paint Warehouse	11-15 Stillings St	Boston	1907
BOS.15364	Stillings Street Garage	11-23 Stillings St	Boston	2001
BOS.5567	Boston Wharf Company Radiator Warehouse	17-27 Stillings St	Boston	1905
BOS.5568	Boston Wharf Company Warehouse	29 Stillings St	Boston	1926
BOS.5569	Boston Wharf Company Iron Warehouse	35-37 Stillings St	Boston	1913
BOS.5570	Boston Wharf Company Warehouse	38-40 Stillings St	Boston	1913
BOS.5572	Boston Wharf Company Iron and Oil Warehouse	43 Stillings St	Boston	1904
BOS.5571	Boston Wharf Company Wholesale Grocery Warehouse	44-48 Stillings St	Boston	1914
BOS.13542		2 Story St	Boston	r 1865
BOS.13543		4 Story St	Boston	r 1865
BOS.13544		6 Story St	Boston	r 1865
BOS.13545		8 Story St	Boston	r 1865

Inv. No.	Property Name	Street	Town	Year
BOS.13546		9 Story St	Boston	r 1880
BOS.13547		10-12 Story St	Boston	r 1880
BOS.13548		11 Story St	Boston	r 1890
BOS.13550		13 Story St	Boston	r 1890
BOS.13549		14-16 Story St	Boston	r 1890
BOS.13551		20 Story St	Boston	r 1890
BOS.13552		24 Story St	Boston	r 1890
BOS.7092	Dana, Otis D. Two-Family House	26-28 Story St	Boston	r 1885
BOS.13553		28 Story St	Boston	r 1890
BOS.13554		28 Story St	Boston	r 1890
BOS.13555		30 Story St	Boston	r 1890
BOS.9001	Summer Street Bridge over Fort Point Channel	Summer St	Boston	1899
BOS.9155	Summer Street Bridge over A Street	Summer St	Boston	c 1890
BOS.9233	Summer Street Bridge over B Street	Summer St	Boston	1900
BOS.9234	L Street Bridge	Summer St	Boston	1892
BOS.9235	Summer Street Bridge over C Street	Summer St	Boston	1900
BOS.9250	Summer Street Viaduct Bridge	Summer St	Boston	1901
BOS.5573	Boston Wharf Company Wool Warehouse	250-254 Summer St	Boston	1899
BOS.5574	New England Confectionary Company Factory	253 Summer St	Boston	1902
BOS.5575	Boston Wharf Company Wool Warehouse	256-260 Summer St	Boston	1899
BOS.5577	Boston Wharf Company Wool Warehouse	262-266 Summer St	Boston	1899
BOS.5578	Boston Wharf Company Wool Warehouse	268-272 Summer St	Boston	1898
BOS.5579	Boston Wharf Company Wool Warehouse	269-273 Summer St	Boston	1910
BOS.5580	Boston Wharf Company Wool Warehouse	274-278 Summer St	Boston	1898
BOS.5581	United States Rubber Company Warehouse	280-290 Summer St	Boston	1898
BOS.5582	Boston Wharf Company Wool Warehouse	281-283 Summer St	Boston	1904
BOS.5583	Boston Wharf Company Wool Warehouse	285-297 Summer St	Boston	1903
BOS.5584	Williams, J. and Company Wool Warehouse	292-302 Summer St	Boston	1898
BOS.5585	Dwinell-Wright Coffee Importing Company Warehouse	311-319 Summer St	Boston	1904
BOS.5586	Boston Wharf Company Wool Warehouse	312-320 Summer St	Boston	1904
BOS.5587	Howes Brothers Tanning Company	321-325 Summer St	Boston	1911
BOS.5588	Foster, F. A. Dry Goods - Puritan Drapery Fabrics	322-330 Summer St	Boston	1910
BOS.5589	Daylight Baking Supplies Factory	327-333 Summer St	Boston	1911
BOS.15357	Middleby, Joseph Jr. Warehouse	337-347 Summer St	Boston	1907
BOS.12985	Western Electric Co. Electrical Supplies Building	385 Summer St	Boston	1917
BOS.12986		401 Summer St	Boston	1919
BOS.12987		415 Summer St	Boston	1917

Inv. No.	Property Name	Street	Town	Year
BOS.12988	Union Wool Company Wool Warehouse	425 Summer St	Boston	1917
BOS.12989	Williams, Jeremiah Wool Warehouse	495 Summer St	Boston	1910
BOS.12943	Boston Edison L Street Power Station	776 Summer St	Boston	1898
BOS.13005	Clayton, S. C. Syrup - Diamond Drug Company	803 Summer St	Boston	1923
BOS.13006	Karpp Building Supply Company	825 Summer St	Boston	r 1920
BOS.7093	Delaporte, Andrew Gustave House	5 Telegraph St	Boston	c 1870
BOS.7094	Mullin, Thomas M. - Willis, John E. Double House	19-21 Telegraph St	Boston	c 1875
BOS.13556	Molloy, Valentine Double House	52 Telegraph St	Boston	
BOS.13557	Giblin, Daniel C. Double House	54 Telegraph St	Boston	
BOS.13558	Staniford, Lydia E. House	56 Telegraph St	Boston	
BOS.13559		58 Telegraph St	Boston	
BOS.13560	O'Connor, Patrick House	60 Telegraph St	Boston	r 1865
BOS.13561		61 Telegraph St	Boston	r 1865
BOS.13562	Henchy, John House	62 Telegraph St	Boston	r 1865
BOS.13563		63 Telegraph St	Boston	r 1865
BOS.13564		64 Telegraph St	Boston	r 1880
BOS.13565		65 Telegraph St	Boston	r 1865
BOS.13566	Wade, Shadrach Double House	66 Telegraph St	Boston	r 1865
BOS.13567		67 Telegraph St	Boston	r 1865
BOS.13568	Shattuck, Ferdinand Double House	68 Telegraph St	Boston	r 1865
BOS.13569		69 Telegraph St	Boston	r 1865
BOS.9260	Dorchester Heights Monument	Thomas Park	Boston	1901
BOS.9261	Dorchester Heights - Knox, Henry Monument	Thomas Park	Boston	1927
BOS.9262	Dorchester Heights - 1876 Centennial Monument	Thomas Park	Boston	1877
BOS.9263	Dorchester Heights - Perimeter Fence	Thomas Park	Boston	1901
BOS.9485	South Boston Veteran's Memorial	Thomas Park	Boston	1982
BOS.9486	Thomas Park	Thomas Pk	Boston	c 1850
BOS.9795	Dorchester Heights Concrete Path System	Thomas Pk	Boston	c 1870
BOS.13570	Gray - Wadsworth House	5 Thomas Pk	Boston	r 1865
BOS.13571	Elms, Joseph D. Double House	7 Thomas Pk	Boston	r 1865
BOS.13572	James, Charles Double House	9 Thomas Pk	Boston	r 1865
BOS.13573	James, Benjamin House	11 Thomas Pk	Boston	r 1865
BOS.13574	James, Benjamin Stable	12 Thomas Pk	Boston	r 1865
BOS.7095	Whitman, Edward W. - Rogers, William Double House	13-14 Thomas Pk	Boston	c 1871
BOS.13575	Lee - Holbrook Double House	15 Thomas Pk	Boston	r 1880
BOS.13576	Beard - Connors Double House	16 Thomas Pk	Boston	r 1880

Inv. No.	Property Name	Street	Town	Year
BOS.13577	Bray, Susan House	17 Thomas Pk	Boston	r 1880
BOS.13578	Lothrop House	18 Thomas Pk	Boston	r 1880
BOS.7096	Bassett, Joseph Row House	19 Thomas Pk	Boston	1874
BOS.13579	James, Benjamin Double House	21 Thomas Pk	Boston	r 1865
BOS.13580	Earl - Moulton Double House	22 Thomas Pk	Boston	r 1865
BOS.13581		23 Thomas Pk	Boston	r 1865
BOS.13582		24 Thomas Pk	Boston	r 1865
BOS.7097	Callahan, Cornelius H. Double House	25-26 Thomas Pk	Boston	1871
BOS.13583		36 Thomas Pk	Boston	r 1890
BOS.13584	Stratton, Henry J. Double House	39 Thomas Pk	Boston	1884
BOS.13585	Stratton - Kelly Double House	40 Thomas Pk	Boston	r 1880
BOS.13586	Stratton - Kelly Double House	41 Thomas Pk	Boston	r 1880
BOS.13587	Stratton - Kelly Double House	42 Thomas Pk	Boston	r 1880
BOS.13588	Goodwin - Kenney House	43 Thomas Pk	Boston	r 1880
BOS.13589	Stetson - Ormsby House	44 Thomas Pk	Boston	r 1880
BOS.13590	Stetson - Kelly House	45 Thomas Pk	Boston	r 1880
BOS.7098	Hutchins, Clement House	46 Thomas Pk	Boston	c 1875
BOS.13591	Wenners, Elizabeth Double House	47 Thomas Pk	Boston	r 1890
BOS.13592	Goodman, Walter G. Double House	48 Thomas Pk	Boston	r 1890
BOS.13593	Goodman, Walter G. Double House	49 Thomas Pk	Boston	r 1890
BOS.13594	Greene, Maria J. Double House	50 Thomas Pk	Boston	r 1890
BOS.13595	Martin, George House	51 Thomas Pk	Boston	1886
BOS.13596	Martin, George House	52 Thomas Pk	Boston	1886
BOS.13597	Hotel Marie	53 Thomas Pk	Boston	r 1890
BOS.7099	Walbridge, Frederick House	56 Thomas Pk	Boston	1876
BOS.13598	Reardon, Mary C. House	57 Thomas Pk	Boston	r 1890
BOS.13599	Curtis, Thomas C. House	58 Thomas Pk	Boston	r 1890
BOS.7100	Stetson, John A. Double House	59-60 Thomas Pk	Boston	1887
BOS.7101	Gogin, Thomas House	61 Thomas Pk	Boston	c 1873
BOS.13600		63 Thomas Pk	Boston	1927
BOS.13601		65 Thomas Pk	Boston	1927
BOS.13602		67 Thomas Pk	Boston	1927
BOS.13603		68 Thomas Pk	Boston	1927
BOS.7102	Manning, Thomas - Johnson, Samuel W. House	69 Thomas Pk	Boston	c 1867
BOS.5552	Boston Wharf Company Building	12-18 Thomson Pl	Boston	1907
BOS.5553	Boston Wharf Company Paint and Varnish Warehouse	19-23 Thomson Pl	Boston	1907
BOS.15358	Thomson Financial Offices	22-24 Thomson Pl	Boston	1992

Inv. No.	Property Name	Street	Town	Year
BOS.5554	Boston Wharf Company Warehouse	25-27 Thomson Pl	Boston	1909
BOS.5555	Boston Wharf Company Building	26-28 Thomson Pl	Boston	1908
BOS.15359	Boston Wharf Company Building	29-33 Thomson Pl	Boston	1912
BOS.5556	Boston Wharf Company Building	30-34 Thomson Pl	Boston	1916
BOS.15360	Boston Wharf Company Building	35-37 Thomson Pl	Boston	1913
BOS.5557	Boston Wharf Company Building	36-40 Thomson Pl	Boston	1900
BOS.5558	Boston Wharf Company Warehouse	41-45 Thomson Pl	Boston	1924
BOS.5559	Pittsburgh Plate Glass Company Warehouse	42-56 Thomson Pl	Boston	1909
BOS.5560	Boston Wharf Company Warehouse	47-55 Thomson Pl	Boston	1924
BOS.12972	Boston Army Supply Base - Building 54	7 Tide St	Boston	c 1940
BOS.7103		5 Vinton St	Boston	c 1919
BOS.7113	Saints Peter and Paul Roman Catholic Church	45 West Broadway	Boston	1844
BOS.7104	Cardinal Cushing Central High School for Girls	50-72 West Broadway	Boston	c 1868
BOS.7114	Saints Peter and Paul Roman Catholic Rectory	55-59 West Broadway	Boston	c 1868
BOS.15331	Devine Block	72 West Broadway	Boston	c 1890
BOS.7105	Casey, Thomas Building	82 West Broadway	Boston	1896
BOS.7106	Collins, James Liquor Import and Wholesale Dealers	262-270 West Broadway	Boston	r 1860
BOS.9251	Street Clock	342 West Broadway	Boston	c 1870
BOS.7115	Greene, Gardiner Row House	363 West Broadway	Boston	c 1824
BOS.7116	Greene, Gardiner Row House	365 West Broadway	Boston	c 1824
BOS.7107	Monks and Company Flour and Grain Building	366 West Broadway	Boston	1873
BOS.7117	Greene, Gardiner Row House	367 West Broadway	Boston	c 1824
BOS.7108	South Boston Savings Bank	368-372 West Broadway	Boston	r 1870
BOS.7118	Greene, Gardiner Row House	369 West Broadway	Boston	c 1824
BOS.7120	Nickerson Apartment Building	397-401 West Broadway	Boston	r 1895
BOS.7121	Bethesda Hall - Baker Building	403-415 West Broadway	Boston	1890
BOS.7090		409 West Broadway	Boston	c 1900
BOS.7109	Saint Matthew's Episcopal Church	410 West Broadway	Boston	1860
BOS.7110	U. S. Post Office - South Boston Branch	420-426 West Broadway	Boston	1919
BOS.7111	South Boston Savings Bank	460-462 West Broadway	Boston	1948
BOS.7112	South Boston Market	464-468 West Broadway	Boston	1935
BOS.7173	King, Augustus Double House	197-199 West Eighth St	Boston	c 1874
BOS.9239	West Fifth Street Bridge over Conrail	West Fifth St	Boston	1918
BOS.7160	Minot, William Row House	261 West Fifth St	Boston	c 1868
BOS.7161	Minot, William Row House	263 West Fifth St	Boston	c 1868
BOS.7162	Minot, William Row House	265 West Fifth St	Boston	c 1868
BOS.7163	Burrage, J. Row House	267 West Fifth St	Boston	c 1868

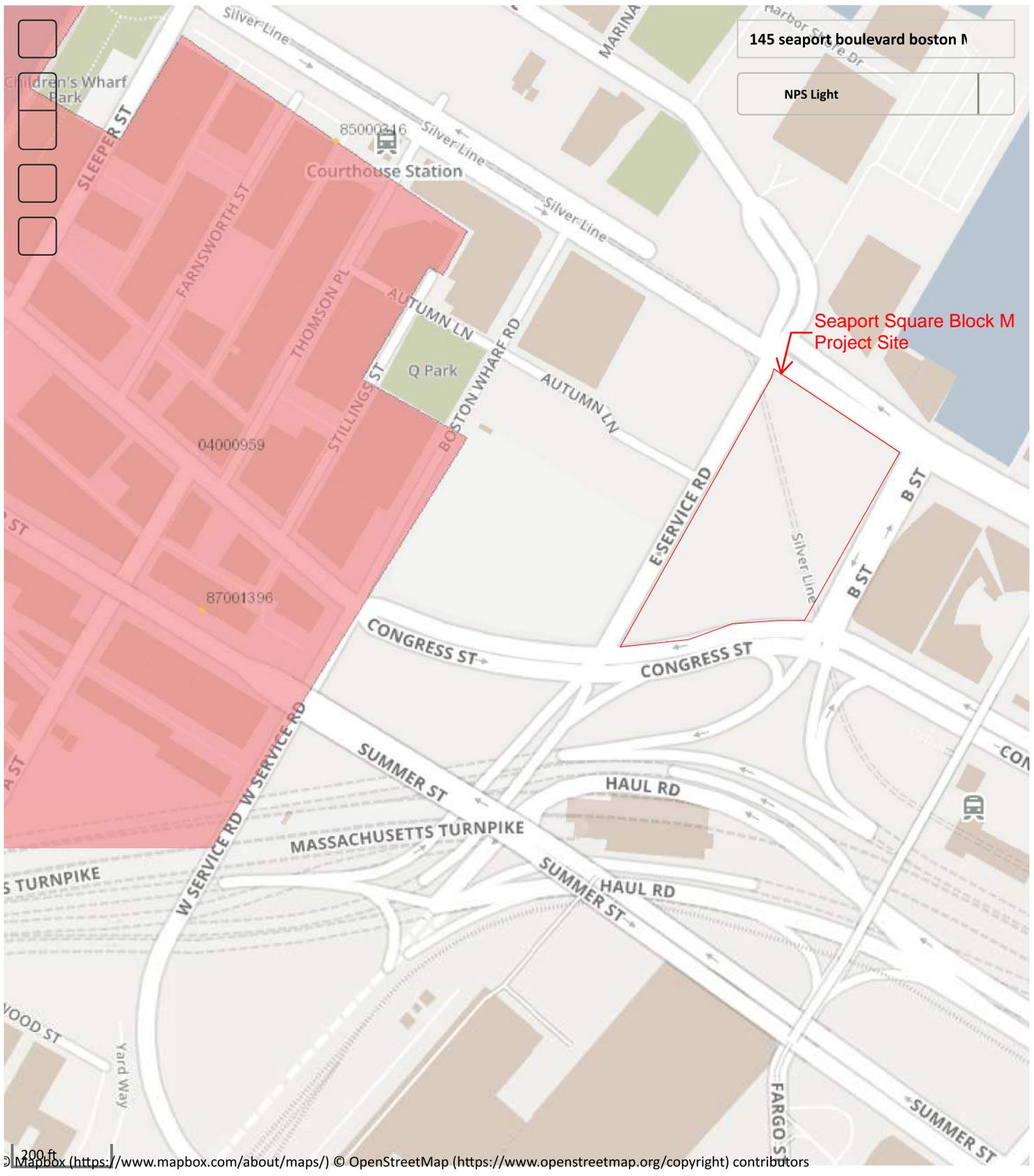
Inv. No.	Property Name	Street	Town	Year
BOS.7164	Frothingham, Nathaniel D. Row House	269 West Fifth St	Boston	c 1868
BOS.7165	Connor, James Row House	271 West Fifth St	Boston	c 1868
BOS.7166	Minot, William Row House	273 West Fifth St	Boston	c 1868
BOS.7167	Minot, William Row House	275 West Fifth St	Boston	c 1868
BOS.7168	Minot, William Row House	277 West Fifth St	Boston	c 1868
BOS.7169	Connor, James Row House	279 West Fifth St	Boston	c 1868
BOS.7170	Minot, William Row House	281 West Fifth St	Boston	c 1868
BOS.7171	Minot, William Row House	283 West Fifth St	Boston	c 1868
BOS.12990	Estabrook's, Rufus Sons Building	202 West First St	Boston	c 1890
BOS.9007	West Fourth Street Bridge - Dover Street Bridge	West Fourth St	Boston	1893
BOS.9245	West Fourth Street Bridge over MBTA	West Fourth St	Boston	1917
BOS.7146	York House - South Boston Hotel	99-101 West Fourth St	Boston	c 1830
BOS.7147	Wood, William W. Double House	123-125 West Fourth St	Boston	c 1845
BOS.7139	Hausman, Harry and Joseph Building	142 West Fourth St	Boston	c 1919
BOS.7140	Hausman, Harry and Joseph Building	150-154 West Fourth St	Boston	1904
BOS.7141	Bigelow School	350 West Fourth St	Boston	1901
BOS.7148	Homer, Henry House	361 West Fourth St	Boston	c 1843
BOS.7149	Thing, Joseph House	375 West Fourth St	Boston	c 1852
BOS.7150	Conley, Charles C. - Safford, Daniel House	377 West Fourth St	Boston	c 1844
BOS.7142	Nickerson, Capt. Jonathan S. House	380 West Fourth St	Boston	c 1870
BOS.7143	Murphy, Mary E. House	388 West Fourth St	Boston	c 1852
BOS.7151	Smith, Horace - Driscoll, J. Double House	389-391 West Fourth St	Boston	c 1852
BOS.7144	Winch, Mary - Lovett, George L. Double House	392-394 West Fourth St	Boston	c 1868
BOS.7152	Miles - Smith, James F. Double House	397-399 West Fourth St	Boston	c 1852
BOS.7153	Hughes, Joshua House	401 West Fourth St	Boston	c 1852
BOS.7154	Atwood, Charles House	411 West Fourth St	Boston	c 1852
BOS.7155	James, Benjamin Row House	417 West Fourth St	Boston	r 1860
BOS.7156	Smith, Freeman Row House	419 West Fourth St	Boston	r 1860
BOS.7157	Brown, Solon F. Row House	421 West Fourth St	Boston	r 1860
BOS.7158	Howard, Samuel Row House	423 West Fourth St	Boston	r 1860
BOS.7159	James, Francis Row House	425 West Fourth St	Boston	r 1860
BOS.6874	South Boston Community Health Center	453 West Fourth St	Boston	1926
BOS.7145	Boston Hook and Ladder Fire House #5	456 West Fourth St	Boston	r 1870
BOS.7122	Ipswich Hosiery Mill	154 West Second St	Boston	1912
BOS.7124	Lawrence, William R. Row House	161 West Second St	Boston	c 1852
BOS.7125	Lawrence, William R. Row House	163 West Second St	Boston	c 1852
BOS.7126	Lawrence, William R. Row House	165 West Second St	Boston	c 1852
BOS.7127	Lawrence, William R. Row House	167 West Second St	Boston	c 1852

Inv. No.	Property Name	Street	Town	Year
BOS.6848	Boston Beer Company	249 West Second St	Boston	c 1882
BOS.7123	Hersey Brothers Machinery Manufacturing Company	314-330 West Second St	Boston	c 1899
BOS.7172	Cunningham, Mary - Furber, Benjamin Double House	190-192 West Seventh St	Boston	c 1868
BOS.9232	West Sixth Street Bridge over Conrail	West Sixth St	Boston	1918
BOS.9238	West Third Street Bridge over Conrail	West Third St	Boston	1918
BOS.7137	Foley, John House	117 West Third St	Boston	c 1868
BOS.7128	Saint Vincent de Paul Roman Catholic Church	212 West Third St	Boston	1872
BOS.7129	Weston, Alden B. House	236 West Third St	Boston	c 1874
BOS.7130	Connors, Ann Double Three Decker	242-244 West Third St	Boston	r 1895
BOS.7131	Lanergan, Richard House	256 West Third St	Boston	c 1852
BOS.7138	Williams, Rev. J. J. House	267 West Third St	Boston	r 1880
BOS.7132	McCarthy, Ellen House	310 West Third St	Boston	c 1852
BOS.7133	Souther, Henry P. Row House	346 West Third St	Boston	c 1868
BOS.7134	Souther, Henry P. Row House	348 West Third St	Boston	c 1868
BOS.7135	Souther, Henry P. Row House	350 West Third St	Boston	c 1868
BOS.7136	Souther, Henry P. Row House	352 West Third St	Boston	c 1868
BOS.7175	Columbus Park Building	William J. Day Blvd	Boston	
BOS.7176	Columbus Park Building	William J. Day Blvd	Boston	
BOS.7177	Carson Beach Bath and Field House	William J. Day Blvd	Boston	c 1922
BOS.7178	Carson Beach Concession Stand	William J. Day Blvd	Boston	
BOS.9253	Columbus Park	William J. Day Blvd	Boston	c 1897
BOS.9254	Carson Beach	William J. Day Blvd	Boston	c 1897
BOS.9255	Strandway, The	William J. Day Blvd	Boston	c 1897
BOS.9579	South Boston Boat Clubs Granite Retaining Wall	William J. Day Blvd	Boston	r 1920
BOS.9580	South Boston Boat Clubs Iron Fence	William J. Day Blvd	Boston	r 1920
BOS.6851	L Street Bath House	1663-1685 William J. Day Blvd	Boston	1931
BOS.7174	Richmond, Augustus C. House	52-54 Woodward St	Boston	c 1874
BOS.15361	Factory Buildings Trust Industrial Building #2	21 Wormwood St	Boston	c 1896
BOS.15365	Factory Buildings Trust Industrial Building #3	23-27 Wormwood St	Boston	c 1896
BOS.15362	Factory Buildings Trust Industrial Building #4	33-37 Wormwood St	Boston	c 1897
BOS.9515	Factory Buildings Trust Chimney Stack	41-45 Wormwood St	Boston	c 1896
BOS.15363	Factory Buildings Trust Industrial Building #5	41-45 Wormwood St	Boston	c 1896

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National Park Service  
U.S. Department of the Interior

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# Massachusetts Cultural Resource Information System

## MACRIS

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<b>Inventory No:</b>	BOS.7179 	 <p>Digital Photo Not Yet Available</p>
<b>Historic Name:</b>	Commonwealth Pier Five	
<b>Common Name:</b>	Commonwealth Pier	
<b>Address:</b>	165 Northern Ave	
<b>City/Town:</b>	Boston	
<b>Village/Neighborhood:</b>	South Boston; South Boston West	
<b>Local No:</b>		
<b>Year Constructed:</b>	1914	
<b>Architect(s):</b>	Converse, H. P. and Company; Fay, Spofford and Thorndike; Hodgdon, Frank W.	
<b>Architectural Style(s):</b>	Classical Revival	
<b>Use(s):</b>	Business Office; Military Other; Other Commercial; Other Rail Related; Other Water Related; Warehouse	
<b>Significance:</b>	Architecture; Commerce; Ethnic Heritage; Industry; Maritime History; Military; Transportation	
<b>Area(s):</b>		
<b>Designation(s):</b>	Nat'l Register Individual Property (10/10/1979)	
<b>Building Material(s):</b>	Wall: Brick; Cast Stone; Concrete Unspecified; Coursed Ashlar; Steel; Stucco; Wood; Stone, Cut	

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# Massachusetts Cultural Resource Information System

## MACRIS

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**Inventory No:** BOS.9233   
**Historic Name:** Summer Street Bridge over B Street  
**Common Name:**  
**Address:** Summer St  
**City/Town:** Boston  
**Village/Neighborhood:** South Boston; South Boston West  
**Local No:**  
**Year Constructed:** 1900  
**Architect(s):** Pennsylvania Steel Company  
**Architectural Style(s):** Plate Girder  
**Use(s):** Other Transportation  
**Significance:** Engineering; Transportation  
**Area(s):**  
**Designation(s):**  
**Building Material(s):**



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# Massachusetts Cultural Resource Information System

## MACRIS

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**Inventory No:** BOS.9250 

**Historic Name:** Summer Street Viaduct Bridge

**Common Name:** N. Y., N. H. and H. Railroad Bridge #0.87

**Address:** Summer St

**City/Town:** Boston

**Village/Neighborhood:** South Boston; South Boston West

**Local No:**

**Year Constructed:** 1901

**Architect(s):** Moore, William Harley; American Bridge Company; Edge Moor Bridge Works; Ingersoll, C. M.

**Architectural Style(s):** Truss Baltimore; Truss Warren with Verticals

**Use(s):** Other Rail Related; Other Transportation

**Significance:** Engineering; Transportation

**Area(s):**

**Designation(s):**

**Building Material(s):**



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**APPENDIX F**

**Endangered Species Act Documentation**



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

January 20, 2017

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm> (accessed January 2017)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Maria Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman  
Supervisor  
New England Field Office

# IPaC resource list

## Location

Suffolk County, Massachusetts



## Local office

New England Ecological Services Field Office

☎ (603) 223-2541

📠 (603) 223-0104

70 Commercial Street, Suite 300  
Concord, NH 03301-5094

<http://www.fws.gov/newengland>

## Endangered species

**This resource list is for informational purposes only and should not be used for planning or analyzing project level impacts.**

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to “request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action” for any project that is conducted, permitted, funded, or licensed by any Federal agency.

**A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Review section in IPaC or from the local field office directly.**

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by creating a project and making a request from the Regulatory Review section.

Listed species<sup>1</sup> are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

## Birds

NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. <a href="http://ecos.fws.gov/ecp/species/1864">http://ecos.fws.gov/ecp/species/1864</a>	Threatened
Roseate Tern <i>Sterna dougallii dougallii</i> No critical habitat has been designated for this species. <a href="http://ecos.fws.gov/ecp/species/2083">http://ecos.fws.gov/ecp/species/2083</a>	Endangered

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service<sup>3</sup>. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location, not a list of every bird species you may find in this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#).

NAME	SEASON(S)
American Oystercatcher <i>Haematopus palliatus</i> <a href="http://ecos.fws.gov/ecp/species/8935">http://ecos.fws.gov/ecp/species/8935</a>	On Land: Breeding
Bald Eagle <i>Haliaeetus leucocephalus</i> <a href="http://ecos.fws.gov/ecp/species/1626">http://ecos.fws.gov/ecp/species/1626</a>	On Land: Year-round

Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> <a href="http://ecos.fws.gov/ecp/species/9399">http://ecos.fws.gov/ecp/species/9399</a>	On Land: Breeding
Hudsonian Godwit <i>Limosa haemastica</i>	At Sea: Migrating
Olive-sided Flycatcher <i>Contopus cooperi</i> <a href="http://ecos.fws.gov/ecp/species/3914">http://ecos.fws.gov/ecp/species/3914</a>	On Land: Breeding
Peregrine Falcon <i>Falco peregrinus</i> <a href="http://ecos.fws.gov/ecp/species/8831">http://ecos.fws.gov/ecp/species/8831</a>	On Land: Wintering
Purple Sandpiper <i>Calidris maritima</i>	On Land: Wintering
Short-eared Owl <i>Asio flammeus</i> <a href="http://ecos.fws.gov/ecp/species/9295">http://ecos.fws.gov/ecp/species/9295</a>	On Land: Wintering
Willow Flycatcher <i>Empidonax traillii</i> <a href="http://ecos.fws.gov/ecp/species/3482">http://ecos.fws.gov/ecp/species/3482</a>	On Land: Breeding
Wood Thrush <i>Hylocichla mustelina</i>	On Land: Breeding
Worm Eating Warbler <i>Helmitheros vermivorum</i>	On Land: Breeding

#### What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

##### Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

##### Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

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The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

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## Facilities

### Wildlife refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### **Data exclusions**

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 COMMERCIAL STREET, SUITE 300  
CONCORD, NH 03301  
PHONE: (603)223-2541 FAX: (603)223-0104  
URL: [www.fws.gov/newengland](http://www.fws.gov/newengland)

Consultation Code: 05E1NE00-2017-SLI-1075

March 15, 2017

Event Code: 05E1NE00-2017-E-01996

Project Name: Seaport Square Block M

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](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



United States Department of Interior  
Fish and Wildlife Service

Project name: Seaport Square Block M

## Official Species List

### Provided by:

New England Ecological Services Field Office

70 COMMERCIAL STREET, SUITE 300

CONCORD, NH 03301

(603) 223-2541

<http://www.fws.gov/newengland>

**Consultation Code:** 05E1NE00-2017-SLI-1075

**Event Code:** 05E1NE00-2017-E-01996

**Project Type:** DEVELOPMENT

**Project Name:** Seaport Square Block M

**Project Description:** 145 Seaport Boulevard, Boston MA

<4 acres, construction of of mixed-use commercial/residential structure

April 2017-April 2019

**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior  
Fish and Wildlife Service

Project name: Seaport Square Block M

**Project Location Map:**



**Project Coordinates:** MULTIPOLYGON (((-71.04392766952516 42.350932577852824, -71.04500055313112 42.34948949076694, -71.04482889175416 42.3492357577447, -71.04362726211549 42.34941019930749, -71.04291915893556 42.35042512243457, -71.04392766952516 42.350932577852824)))

**Project Counties:** Suffolk, MA



United States Department of Interior  
Fish and Wildlife Service

Project name: Seaport Square Block M

## Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your 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. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Red Knot ( <i>Calidris canutus rufa</i> ) Population: Wherever found	Threatened		
Roseate tern ( <i>Sterna dougallii dougallii</i> ) Population: northeast U.S. nesting pop.	Endangered		



United States Department of Interior  
Fish and Wildlife Service

Project name: Seaport Square Block M

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Project information

### NAME

Seaport Square Block M

### LOCATION

Suffolk County, Massachusetts



### DESCRIPTION

145 Seaport Boulevard, Boston MA  
 <4 acres, construction of mixed-use commercial/residential structure  
 April 2017-April 2019

## Local office

New England Ecological Services Field Office

☎ (603) 223-2541  
 📠 (603) 223-0104

70 Commercial Street, Suite 300  
 Concord, NH 03301-5094

<http://www.fws.gov/newengland>

## Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official

species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

## Birds

NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>	Threatened
Roseate Tern <i>Sterna dougallii dougallii</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/2083">https://ecos.fws.gov/ecp/species/2083</a>	Endangered

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

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Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service<sup>3</sup>. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

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#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



HALEY & ALDRICH, INC.  
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5 July 2017  
File No. 128458-002

EPA/OEP RGP Applications Coordinator  
US Environmental Protection Agency  
Office of Ecosystem Protection  
5 Post Office Square – Suite 100 (OEP06-01)  
Boston, MA 02109-3912

Attention: Ms. Shauna Little

Subject: Temporary Construction Dewatering  
Endangered Species Documentation  
Seaport Square Block M  
Boston, Massachusetts

Dear Ms. Little:

The National Pollutant Discharge Elimination System Remediation General Permit (NPDES RGP) application submitted to the EPA on 16 June 2017 by Haley & Aldrich for the above-referenced project included the applicable Fish and Wildlife Services (FWS) criterion for the terrestrial species. This letter provides additional information concerning National Marine Fisheries Service (NMFS) criterion and Group I PAHs analysis, as per your request of 29 June 2017.

### **NMFS Eligibility**

As described in your e-mail, the proposed discharge is to a saltwater receiving water and therefore must consider NMFS criterion, which is described herein. Based on our review of the NMFS criterion, it is the opinion of Haley & Aldrich that related activities under the NPDES RGP are not likely to adversely affect federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and should not result in a take of listed species.

According to Appendix I: Endangered Species Act (ESA) Guidance and Eligibility Criteria in the NPDES RGP, and reference footnoted below<sup>1</sup>, the Atlantic Sturgeon and the Shortnose Sturgeon are the only ESA-listed species under the NMFS jurisdiction that may have a critical habitat in Massachusetts Bay. The Shortnose Sturgeon mainly occupy deep channel sections of large coastal rivers and nearshore marine waters. The outfall to be used for the Seaport Square Block M discharge is not situated adjacent to large coastal rivers and is not expected to affect the Shortnose Sturgeon population. The closest river to the outfall is the Charles River, which is approximately 1.5 miles from the site. Similarly, the Atlantic Sturgeon is more commonly found in large rivers and brackish waters; adults who live in coastal waters

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<sup>1</sup> <https://www3.epa.gov/region1/npdes/remediation/RGPNMFSletter.pdf>

are typically found in shallow areas with sand and gravel substrates. The outfall proposed for discharge is not located in an area where Atlantic Sturgeon may be found, and the discharge is similarly not expected to affect its population. Furthermore, according the CRWA and NRWA references below<sup>2</sup>, resident populations of Sturgeon no longer exist in the Charles River.

#### Group I PAH Analysis

As described in your e-mail, the minimum detection of quantitation limits (ML) for the sample submitted with the NPDES RGP application were greater than 0.1 ug/L. We understand that analysis with detection limits of 0.1 ug/L or less is required so that the project discharge authorization would not include Group I PAHs which were listed as non-detect with high MLs.

As you are aware, start-up testing for discharge under the previous permit was initiated and we expect to receive the first set of results this week. Our start-up testing included the full list of SVOCs with the required 0.1 ug/L ML. We will provide these data to you as soon as available to supplement the 16 June 2017 NOI so that the EPA can consider these results in developing the required compliance monitoring parameters.

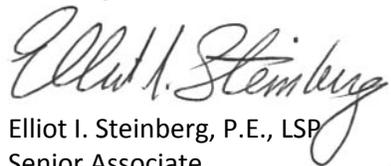
#### Closing

Thank you very much for your consideration. Please feel free to contact us should you wish to discuss the information contained herein or if you need additional information.

Sincerely yours,  
HALEY & ALDRICH, INC.



Lina M. Juozelskis, E.I.T.  
Staff Engineer - Environmental



Elliot I. Steinberg, P.E., LSP  
Senior Associate

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<sup>2</sup> <http://blog.crwa.org/blog/5-migratory-fish-found-in-the-charles-river-ecosystem>  
<https://www.neponset.org/your-watershed/natural-history/aquatic-habitat/aquatic-life/migratory-fish/>