NOTICE OF INTENT FOR DISCHARGE PURSUANT TO MASSACHUSETTS REMEDIATION GENERAL PERMIT MAG9100000

399 CONGRESS STREET

BOSTON, MASSACHUSETTS

JUNE 5, 2017

Prepared For:

U.S. Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square – Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

On Behalf Of:

399 Congress LLC
c/o Crescent Heights
2200 Biscayne Boulevard
Miami FL, 33137

PROJECT NO. 4540

2269 Massachusetts Avenue
Cambridge, MA 02140
www.mcphailgeo.com
(617) 868-1420

June 5, 2017

U.S. Environmental Protection Agency
Dewatering GP Processing
Industrial Permit Unit (OEP 06-4)
5 Post Office Square – Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

Attention: To Whom It May Concern

Reference: 399 Congress Street Boston, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under
Massachusetts Remediation General Permit MAG910000

Ladies and Gentlemen:

On behalf of John Moriarty & Associates, Inc., McPhail Associates, LLC (McPhail) has prepared the attached Notice of Intent (NOI) for coverage under the Remediation General Permit (RGP) MAG910000 that has been prepared for the Commonwealth of Massachusetts for the discharge of construction dewatering effluent into Boston Inner Harbor via the City of Boston storm drainage system. The temporary construction dewatering discharge will occur during construction of the proposed mixed-use development to be located at 399 Congress Street in Boston, Massachusetts (subject site). Refer to **Figure 1** entitled: "Project Location Plan" for the general site locus.

These services were performed and this permit application was prepared in accordance with our proposal dated March 17, 2016, and the subsequent authorization of 399 Congress LLC. These services are subject to the limitations contained in **Appendix A**.

The required Notice of Intent Form contained in the DGP permit and Boston Water & Sewer Dewatering Discharge Permit Application are included in **Appendix B** and supporting information is included in **Appendix C**. This project is considered Activity Category III-G as defined in the RGP. Category III-G is defined as Contaminated Site Dewatering from Sites with Know Contamination. Based on historical and current soil and groundwater analysis completed at the site and constituents of concern (COCs) detected under subcategory A (Inorganics), D (Non-Halogenated Semi-Volatile Organics) apply.

Thus, Technology Based Effluent Limitations (TBELs) for Type A and D contamination apply. Water Quality Based Effluent Limitations (WQBELs) were calculated in accordance with Appendix V of the RGP for the parameters detected.

Applicant/Operator

The applicant for the Notice of Intent-Dewatering General Permit is:

John Moriarty & Associates, Inc.
3 Church Street
Winchester, MA 01890

Attention: Eric Harstad

Office: 781-729-3900 ext.342
Email: eharstad@jm-a.com

Site Location and Existing Conditions

The proposed development parcel is bounded by Congress Street to the north and east, East Service Road to the west, and a below-grade entrance ramp (Ramp D) to the Central Artery/Tunnel (CA/T) to the south. The subject site consists of an elliptical plan area and occupies a footprint of approximately 30,000 square-feet. Currently, the site is unoccupied and grass covered. The existing ground surface at the perimeter of the site along Congress Street varies from approximately Elevation +18.5 to Elevation +22 (Boston City Base Datum). The limits of the subject site are depicted on **Figure 2**.

Proposed Scope of Site Development

We understand that redevelopment of the subject site will include the construction of a 22-story tower with three (3) levels of below grade parking. The footprint of the proposed lowest level of the building will occupy the majority of the subject site with a plan area of approximately 24,000 square feet.

Foundation support for the proposed structure is understood to consist of a waterproofed mat foundation system. The proposed lowest level floor slab of the garage is understood to be at approximate Elevation -9.75, or approximately 29.5 feet below the average existing ground surface. Prior to construction of the foundation, a preparatory phase of construction will be completed at the subject site. To construct the proposed below grade space, it is anticipated that an approximate 35-foot deep excavation will be required.

Construction of the below grade levels will be performed within a slurry wall that will be installed as the perimeter wall of the common foundation and will provide a groundwater cut-off.

Site History

Sanborn Maps indicate that the subject site has been undeveloped since 1995, and may have been utilized as a parking lot for a portion of that period. Historically, the Seaport section of Boston which contains the subject site was created in the mid-1800s during a series land reclamation projects. Material used for filling the Seaport area generally consisted of dredged soil from Boston Harbor and miscellaneous granular fill material. According to reports by others, the subject site was initially developed in 1889 as a rail yard consisting of a freight house and rail platform. By 1923, Sanborn Maps indicate that the northern portion of the subject site was utilized for the storage of coal for locomotives that may have been present on the subject site. In 1950, Sanborn maps indicate the presence of an oil house in the vicinity of the western portion of the property. Between 1991 and 2006 portions of the subject site and surrounding area were redeveloped as part of the construction of the Boston Central Artery Tunnel which currently exists to the south of the subject site.

MCP Regulatory Status

In February 2014, a release of total lead, total arsenic, total petroleum hydrocarbons, and polynuclear aromatic hydrocarbons (PAHs) to soil was reported to the Massachusetts Department of Protection (DEP) at which point RTN 3-31005 was assigned. The release was originally detected by others during a subsurface exploration program which was completed at the request of the previous owner in 2013.

Based upon results of subsurface assessment activities that have been performed at the subject site to define the nature and extent of the contaminants of concern, the release is considered to be localized to fill material at the subject site at a depth of 0 to 20 feet below ground surface. The source of the soil contamination is considered to be attributable to historical filling of the subject site. As discussed further below, a release to groundwater at the subject site has not been identified.

A Release Abatement Measure Plan will be filed prior to redevelopment of the subject site for the management excavation and off-site disposal of the fill material impacted by RTN 3-31005.

Site Environmental Setting, and Surrounding Historical Places

Based on an on-line edition of the Massachusetts Geographic Information Systems DEP Priority Resources Map (GIS Map) viewed on November 18, 2016, the subject site is not located within the boundaries of a Sole Source Aquifer, Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Further, there are no public drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or Endangered Species within specified distances of the subject site.

The GIS Map indicates that there are no water bodies or wetland areas on or within 500 feet of the subject site. The map indicates that the closest Protected Open Space to the subject site is located approximately 3,600 feet to the south-southwest. The closest water body is Boston Inner Harbor, which is located approximately 830 feet to the northeast of the subject site. There are no areas designated as solid waste sites (landfill) noted as being located within 3,000 feet of the subject site. A copy of the Massachusetts GIS Priority Resources Map is included in **Appendix C**. In addition, a report prepared by Environmental Database Resource, Inc. (EDR) was reviewed for this study. Based on EDR's search of FEMA Flood Plain Maps, the subject site is not located within a 100 year or 500 year flood plain.

A review of information provided by the U.S. Fish and Wildlife Service in an Information for Planning and Conservation (IPaC) Trust Resource Report for the subject site did not identify the presence of endangered species at or in the vicinity of the discharge location and/or discharge outfall. Further, the Trust Resource Report did not identify the presence of a critical habitat in the vicinity of the discharge outfall and/or discharge location. However, the report indicated that the Red Knot bird, which is classified as a "threatened" species, should be considered with regard to this project. Based on correspondence with the New England Field Office for the U.S. Fish and Wildlife Service, groundwater discharge from the subject site to Boston Inner Harbor is not considered likely to adversely affect the Red Knot bird. Based upon the above, the site is considered a criterion C pursuant to Appendix IV of the RGP. A copy of the IPaC Trust Resource Report and correspondence are included in **Appendix C**.

A review of the online Massachusetts Cultural Resource Information System and the National Register of Historical Places for Suffolk County in Boston, Massachusetts did not identify records or addresses of historic places that exist in the immediate vicinity of the subject site and/or outfall location.

Temporary Construction Dewatering

It is anticipated that excavation within the proposed footprint of the common foundation will extend approximately 24 feet below the observed groundwater level. In order to facilitate construction of the below grade levels, to provide support of the excavation and to provide an effective groundwater cut-off during construction, a continuous slurry wall will be installed as the perimeter wall of the common foundation. Hence, construction dewatering will be necessary within the footprint of the common foundation to facilitate construction of the proposed below grade levels and foundation elements.

The excavation phase of construction will progress in stages based upon depth as it relates to the off-site removal of fill material, organic soil, sand, and clay from within the limits of the proposed foundation. Given that the excavation will be performed within a slurry wall which will act as a groundwater cut-off, the volume of groundwater that will require construction dewatering will generally be limited to the area within the common foundation.

The rate of construction dewatering discharge will vary as the excavation progresses from the relatively pervious fill material into the relatively impermeable underlying organic and clay deposits. It is anticipated that the rate of construction dewatering to facilitate excavation of the fill material will be on the order of 25 to 50 gallons per minute (gpm). However, as the excavation extends into the underlying organic and clay deposits, it is anticipated that the rate of construction dewatering will decrease to approximately 10 to 25 gallons per minute. These estimates do not include surface run-off which will be removed from the excavation during periods of precipitation.

Given that the area of the common foundation occupies a majority of the subject site, temporary on-site collection and recharge of groundwater is not feasible. As a result, construction dewatering will require the discharge of collected groundwater into the storm drain system under the requested Remediation General Permit.

A review of available subgrade utility plans provided by the Boston Water and Sewer Commission indicates the presence of dedicated 30-inch storm drain located at the subject site beneath Congress Street and East Service Road. Stormwater is collected within each of the storm drains and flows northeast into a storm drain located beneath B Street. The stormwater drain located beneath B Street flows northeast where it eventually discharges into Boston Inner Harbor. The location of the relevant stormwater drains in relation to the subject site are indicated on **Figure 2**. The flow path of the discharge is shown in a plan provided by the Boston Water and Sewer Commission which is included in **Figure 3**.

Summary of Groundwater Analysis

Between 2005 and 2016, a series of groundwater samples were obtained from various monitoring wells installed at the subject site. Initially, in December 2005, laboratory analysis of groundwater samples were performed by Levine Fricke (LFR) as part of a Phase I Environmental Site Assessment of the subject site. Subsequently, laboratory analysis was performed to characterize the groundwater for off-site discharge in anticipation of construction dewatering activities by CDM Smith (CDM) in 2013 and McPhail Associates in 2016. The following is a summary of the laboratory analysis that was performed on groundwater at the subject site.

LFR December 2005

Three soil borings were advanced by GeoSearch Drilling and completed as a 20-foot groundwater monitoring wells. Groundwater samples were collected from the completed wells by LFR and submitted to a laboratory for analysis of the presence of extractable petroleum hydrocarbons (EPH) with target polycyclic aromatic hydrocarbon (PAH) analytes, volatile petroleum hydrocarbon (VPH) ranges, volatile organic compounds (VOCs), and RCRA 8 metals. Results of the analysis did not indicate the presence of tested compounds above the applicable MCP RCGW-2 standards or the applicable EPA effluent limits for

discharge into a salt water body. Monitoring well locations are shown on **Figure 2**, a summary of groundwater LFR's analytical data is attached in **Appendix C**.

CDM August 2013

One groundwater monitoring well identified as CDM-3 was completed at a depth of approximately 15 feet below ground surface by CDM in August 2013. One groundwater sample was collected by CDM on August 9, 2013 and submitted to a laboratory for analysis under NPDES RGP methods for the following parameters: total suspended solids (TSS), total metals (antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, and zinc), total hexavalent chromium, total cyanide, total phenolics, total residual chlorine, chloride anions, pH, TPH, micro-extractables, VOCs, semivolatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs). Results of the analysis did not indicate the presence of tested compounds in excess of applicable MCP RGGW-2 standards or the applicable TBELs for discharge into a salt water body. Monitoring well locations are shown on **Figure 2**. A summary of CDM's analytical data is attached in **Appendix C**.

McPhail Associates September, 2016

In order to further characterize groundwater at the subject site, supplemental samples of groundwater were collected from two monitoring wells installed by McPhail and identified as OW-1 and OW-2. On September 7 and 27, 2016, a total of three groundwater samples were collected by McPhail, and submitted to a laboratory for analysis of the following parameters: total suspended solids (TSS), total metals (antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, and zinc), total hexavalent chromium, total cyanide, total phenolics, total residual chlorine, chloride anions, pH, TPH, micro-extractables, VOCs, SVOCs, PCBs, dissolved lead, dissolved mercury, and dissolved zinc.

In summary, the contaminates of concern are limited to Inorganics and specific Non-Halogenated SVOCs summarized in **Table 1** and verified by laboratory data analysis located in **Appendix D**.

Per the EPA, a receiving water body sample was obtained from the Boston Inner Harbor as indicated on **Figure 3** and analyzed for Recoverable Metals, pH, Ammonia, and Salinity. The results of the sample we tabulated and assessed using Appendix V of the 2017 NPDES RGP included in **Appendix C** and summarized in **Table 2** and verified by laboratory data analysis located in **Appendix E.** According to those results, TBELs apply to this specific discharge.

It is to be noted that although the Total Iron and Dissolved Iron detected in groundwater at the site are well above the TBEL of saltwater, a WQBEL does not apply because the EPA has indicated it is not needed. Per subsection 2 of section B of the 2017 RGP Fact Sheet (Pg. 85/86 of 145), "No additional WQBEL was derived for saltwater discharges, based on EPA's support document for the development of the recommended criterion, largely because dissolved iron readily precipitates in alkaline saltwaters".

Groundwater Treatment

Based on the results of the above referenced groundwater analyses, it is our opinion that a 5,000-gallon capacity settling tank and bag filter in series will be required to settle and filter out Inorganic particulates and TSS in the discharge during construction dewatering to meet applicable effluent limits established by the US EPA prior to off-site discharge. If necessary, an Ion Resin Exchange filter may be utilized to further treat the effluent discharge to comply with applicable TBELs established for the site. A schematic of the treatment system is shown on **Figure 4**.

Summary and Conclusions

The purpose of this report is to assess site environmental conditions and groundwater data to support an application for a Massachusetts Remediation General Permit for off-site discharge of dewatered groundwater which will be encountered during the proposed development of 399 Congress Street in Boston, Massachusetts.

At the request of the EPA, this RGP was prepared and based on the results of the above referenced groundwater analyses, TBELs apply for discharge to the Boston Inner Harbor.

We trust that the above satisfies your present requirements. Should you have any questions or comments concerning the above, please do not hesitate to contact us.

Sincerely,

McPHAIL ASSOCIATES, LLC

Kirk W. Seaman

Brian Fong-Murdock

William J. Burns, L.S.P.

F:\WP5\REPORTS\4540_RGP_060517.docx

KWS/bfm/wjb

FIGURE 1

McPHAIL ASSOCIATES, LLC
Geotechnical and Geoenvironmental Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)
www.mcphailgeo.com

N

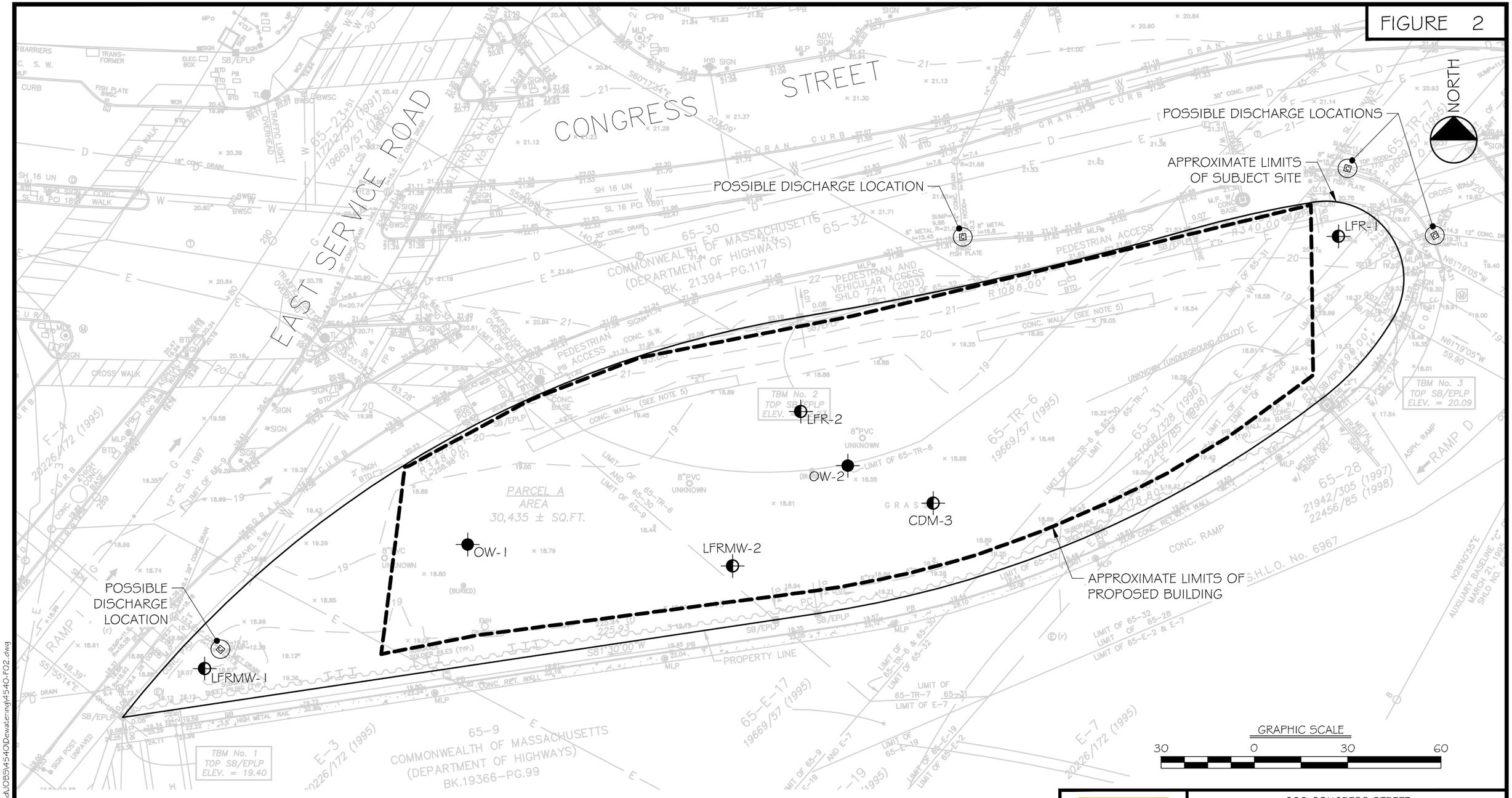
SCALE 1:25,000

PROJECT LOCATION PLAN

399 CONGRESS STREET

SOUTH BOSTON MASSACHUSETTS

FIGURE 2



GRAPHIC SCALE

30 0 30 60

LEGEND

— APPROXIMATE LOCATION OF OBSERVATION WELL INSTALLED BY TECHNICAL DRILLING SERVICES, INC. FROM AUGUST 2 TO SEPTEMBER 2, 2016 FOR McPHAIL ASSOCIATES, LLC

— APPROXIMATE LOCATION OF OBSERVATION WELL INSTALLED BY OTHERS

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED, "TOPOGRAPHIC PLAN OF LAND" DATED AUGUST 12, 2011 PREPARED BY DGT SURVEY GROUP

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399 CONGRESS STREET
BOSTON MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR
399 CONGRESS, LLC
BY
McPHAIL ASSOCIATES, LLC

Date: MAY 2017	Dwn: M.B.S.	Chkd: W.J.B.	Scale: 1" = 30'
Project No: 4540			

FILE NAME: \\McPhail-fs2\McPhail\Acad\JOBS\4540\Dewatering\4540-F02.dwg

FIGURE 3

NORTH

BOSTON WHARF RD

EAST SERVICE RD

SILVER LINE TUNNEL

B ST

SEAPORT BLVD

CONGRESS STREET

BOSTON HARBOR

PARKING

PARKING

BURIED MH4

SDO202 (1.00)

APPROXIMATE DISCHARGE LOCATION

APPROXIMATE LIMITS OF SUBJECT SITE

LEGEND

↗ — INDICATES DIRECTION OF FLOW

REFERENCE: THIS PLAN WAS PREPARED FROM A 100-SCALE PLAN PROVIDED BY THE BOSTON WATER SEWER COMMISSION

GRAPHIC SCALE

100 0 100 200

FILE NAME: \\McPhail-fs2\McPhail\Acad\JOBS\4540\Dewatering\4540-F03.dwg

McPHAIL ASSOCIATES, LLC

Geotechnical and Geoenvironmental Engineers

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399 CONGRESS STREET

BOSTON MASSACHUSETTS

DISCHARGE LOCATION PLAN

FOR

399 CONGRESS, LLC

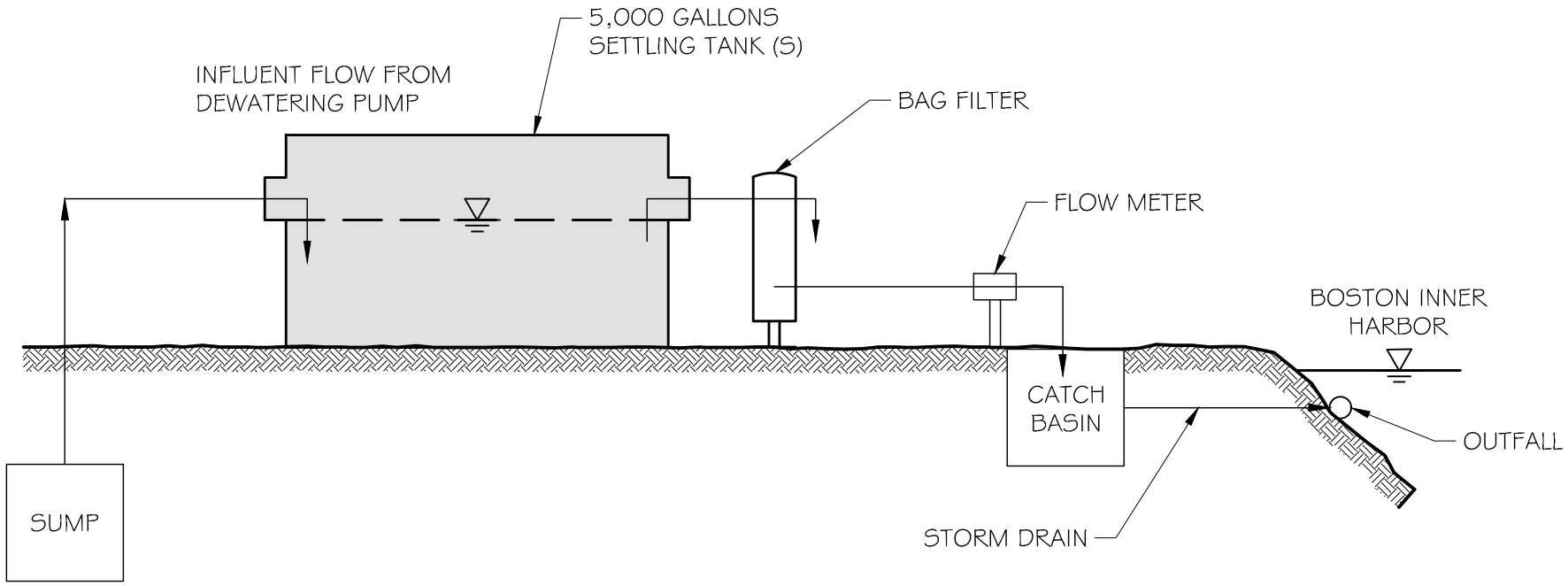
BY

McPHAIL ASSOCIATES, LLC

Date: MAY 2017	Dwn: M.B.S.	Chkd: B.F.M.	Scale: 1" = 100'
Project No: 4540			

FILE NAME: \\McPhail-fs2\McPhail\Acad\JOBS\4540\Dewatering\4540-F04.dwg

FIGURE 4



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399 CONGRESS STREET
BOSTON MASSACHUSETTS

SCHEMATIC OF WATER FLOW

FOR
399 CONGRESS, LLC
BY
McPHAIL ASSOCIATES, LLC
CONSULTING GEOTECHNICAL ENGINEERS

Date: MAY 2017	Dwn: M.B.S.	Chkd: B.F.M.	Scale: N.T.S.
Project No: 4540			

TABLE 1
Analytical Results - Groundwater

399 Congress Street
Boston, Massachusetts
Project No. 4540

LOCATION	OW-1	OW-2	OW-2, GW-1
SAMPLING DATE	**9/7/2016**	**9/7/2016**	**9/27/2016**
LAB SAMPLE ID	**L1628083-01**	**L1628083-02**	**L1630613-01**
ADDITIONAL LAB SAMPLE ID			**L1631704-01**
General Chemistry			
Total Suspended Solids (ug/l)	30000	620000	-
Total Cyanide (ug/l)	ND(5)	ND(5)	-
Total Residual Chlorine (ug/l)	ND(20)	ND(20)	-
pH (H) (SU)	7	6.9	-
TPH, SGT-HEM (ug/l)	ND(4000)	ND(4000)	-
Total Phenolics (ug/l)	ND(30)	ND(30)	-
Chloride (ug/l)	909000	924000	-
Total Metals (ug/l)			-
Antimony, Total	ND(4)	ND(4)	
Total Arsenic	0.9	2	-
Total Cadmium	ND(0.2)	ND(0.2)	-
Total Chromium	ND(1)	ND(1)	-
Total Copper	ND(1)	3.8	-
Total Iron	7990	14000	-
Total Lead	ND(0.5)	4	-
Mercury, Total	ND(0.2)	ND(0.2)	-
Nickel, Total	ND(0.5)	ND(0.5)	-
Selenium, Total	ND(5)	ND(5)	-
Silver, Total	ND(0.4)	ND(0.4)	-
Total Zinc	ND(10)	69.8	-
MCP Dissolved Metals (ug/l)			
Dissolved Iron			15000
Dissolved Lead			3.4
Dissolved Zinc	-	**-**	64
Volatile Organics by GC/MS (ug/l)			
Naphthalene	13	16	-
SUM	13	16	-
Microextractables by GC (ug/l)			
1,2-Dibromoethane	ND(0.01)	ND(0.01)	-
Polychlorinated Biphenyls by GC (ug/l)			
SUM	-	-	-
Semivolatile Organics by GC/MS-SIM (ug/l)			
Acenaphthene	9.6	0.52	-
Naphthalene	1.1	ND(0.2)	-
Fluorene	1.4	0.35	-
Phenanthrene	0.4	0.89	-
1-Methylnaphthalene	1.6	ND(0.2)	-
2-Methylnaphthalene	0.51	ND(0.2)	-
SUM	14.61	1.76	-
Semivolatile Organics by GC/MS (ug/l)			
SUM	ND	ND	-

ND - not detected laboratory method detection limits
(#) - detetion limit
Blank - not tested

TABLE 2
Analytical Results - Surface Water

399 Congress Street
Boston, Massachusetts
Project No. 4540

	LOCATION	BOSTON INNER HARBOR
	SAMPLING DAT	5/11/2017
	LAB SAMPLE ID	L1715446-01
		Results
General Chemistry (SU & ug/l)		
	SALINITY	20
	Nitrogen, Ammon	95
Total Metals (ug/l)		
	Arsenic, Total	ND
	Copper, Total	ND
	Iron, Total	136
	Lead, Total	ND
	Zinc, Total	ND

ND - not detected laboratory method detection limits
(#) - detetion limit
Blank - not tested

APPENDIX A:

LIMITATIONS

LIMITATIONS

The purpose of this report is to present a summary of environmental conditions, including the results of testing of groundwater samples obtained from a groundwater monitoring well on the property located at 399 Congress Street in Boston, Massachusetts in support of an application for approval of temporary construction dewatering discharge of groundwater into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Remediation General Permit MAG910000.

The observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the spaced subsurface explorations become evident in the future, it will be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon analytical data obtained from analysis of groundwater samples, and are contingent upon their validity. The data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used in disposal and other factors.

Laboratory analyses have been performed for specific constituents during the course of this assessment, as described in the text. However, it should be noted that additional constituents not searched for during the current study may be present in soil and/or groundwater at the site.

This report and application have been prepared on behalf of and for the exclusive use of John Moriarty & Associates, LLC and 399 Congress LLC. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, other than the submission to relevant governmental agencies, nor used in whole or in part by any other party without prior written consent of McPhail Associates, LLC.

APPENDIX B:

NOTICE OF INTENT - NPDES REMEDIATION GENERAL PERMIT BOSTON WATER & SEWER DEWATERING DISCHARGE PERMIT APPLICATION

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

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
399 Congress Street</td><td colspan="3">Site address: 399 Congress Street
Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02210</td></tr>
<tr><td rowspan="4">2. Site owner
399 Congress LLC

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Manuel Zacarias</td></tr>
<tr><td colspan="2">Telephone: 212-288-9378 x1612</td><td>Email: mzacarias@crescentheights.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 2200 Biscayne Boulevard</td></tr>
<tr><td>City: Miami</td><td>State: FL</td><td>Zip: 33137</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
John Moriarty & Associate, Inc.</td><td colspan="3">Contact Person: Eric Harstad</td></tr>
<tr><td colspan="2">Telephone: 781-729-3900 ext. 342</td><td>Email: eharstad@jm-a.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 3 Church Street</td></tr>
<tr><td>City: Winchester</td><td>State: MA</td><td>Zip: 01890</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:

NPDES permit is (check all that apply: ☐ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s):
RTN 3-31005
☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:
☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
☐ CWA Section 404</td></tr>
</table>

B. Receiving water information:

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

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

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

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

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

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
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.	0

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

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

C. Source water information:

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

■ Contaminated groundwater 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): ■ Yes ☐ No	☐ Contaminated surface water 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): ☐ Yes ☐ No	☐ The receiving water ☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Potable water; if so, indicate municipality or origin: ☐ Other; if so, specify:

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

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): SDO 202	Outfall location(s): (Latitude, Longitude) 42.350714, -71.042673
Discharges enter the receiving water(s) via (check any that apply): ■ Direct discharge to the receiving water ☐ Indirect discharge, if so, specify: Discharge outfall direct into Boston Inner Harbor ☐ A private storm sewer system ■ 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): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ☐ Yes ■ No, if so, explain, with an estimated timeframe for obtaining permission: Submission of documentation to and approval from BWSC in tandem with this NOI Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ■ Yes ☐ No	
Provide the expected start and end dates of discharge(s) (month/year): July 2017 - June 2018 Indicate if the discharge is expected to occur over a duration of: ■ less than 12 months ☐ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="4">☐ I – Petroleum-Related Site Remediation
☐ II – Non-Petroleum-Related Site Remediation
■ III – Contaminated Site Dewatering
☐ IV – Dewatering of Pipelines and Tanks
☐ V – Aquifer Pump Testing
☐ VI – Well Development/Rehabilitation
☐ VII – Collection Structure Dewatering/Remediation
☐ VIII – Dredge-Related Dewatering</td><td colspan="2">a. If Activity Category I or II: (check all that apply)

☐ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
☐ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>■ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply)

■ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
■ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia	✔							Report mg/L	---
Chloride	✔		2	443000	500	<DL	<DL	Report µg/l	---
Total Residual Chlorine	✔		2	121,4500C	20	<DL	<DL	0.2 mg/L	
Total Suspended Solids		✔	2	1212540D	5000	620000	325000	30 mg/L	
Antimony	✔		2	1,6020A	4	<DL	<DL	206 µg/L	
Arsenic		✔	2	1,6020A	0.5	2	1.45	104 µg/L	
Cadmium	✔		2	1,6020A	2	<DL	<DL	10.2 µg/L	
Chromium III	✔		2	1,6020A	1	<DL	<DL	323 µg/L	
Chromium VI	✔		2	1,6020A	1	<DL	<DL	323 µg/L	
Copper		✔	2	1,6020A	1	3.8	2.4	242 µg/L	
Iron		✔	2	19200.7	500	14000	10,995	5,000 µg/L	
Lead		✔	2	1,6020A	0.5	4	2.25	160 µg/L	
Mercury	✔		2	3,245.1	0.2	<DL	<DL	0.739 µg/L	
Nickel	✔		2	1,6020A	0.5	<DL	<DL	1,450 µg/L	
Selenium	✔		2	1,6020A	5	<DL	<DL	235.8 µg/L	
Silver	✔		2	1,6020A	0.4	<DL	<DL	35.1 µg/L	
Zinc		✔	2	1,6020A	10	69.8	39.9	420 µg/L	
Cyanide	✔		2	121,4500C	5	<DL	<DL	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX	✔		0					100 µg/L	---
Benzene	✔		0					5.0 µg/L	---
1,4 Dioxane	✔		0					200 µg/L	---
Acetone	✔		0					7.97 mg/L	---
Phenol	✔		0					1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✔		1	18260C	0.5	<DL	<DL	4.4 µg/L	
1,2 Dichlorobenzene	✔		1	18260C	2.5	<DL	<DL	600 µg/L	---
1,3 Dichlorobenzene	✔		1	18260C	2.5	<DL	<DL	320 µg/L	---
1,4 Dichlorobenzene	✔		1	18260C	2.5	<DL	<DL	5.0 µg/L	---
Total dichlorobenzene	✔		1	18260C	2.5	<DL	<DL	763 µg/L in NH	---
1,1 Dichloroethane	✔		1	18260C	0.5	<DL	<DL	70 µg/L	---
1,2 Dichloroethane	✔		1	18260C	0.5	<DL	<DL	5.0 µg/L	---
1,1 Dichloroethylene	✔		0					3.2 µg/L	---
Ethylene Dibromide	✔		0					0.05 µg/L	---
Methylene Chloride	✔		1	18260C	3.0	<DL	<DL	4.6 µg/L	---
1,1,1 Trichloroethane	✔		1	18260C	0.75	<DL	<DL	200 µg/L	---
1,1,2 Trichloroethane	✔		1	18260C	0.75	<DL	<DL	5.0 µg/L	---
Trichloroethylene	✔		0					5.0 µg/L	---
Tetrachloroethylene	✔		1	18260C	0.50	<DL	<DL	5.0 µg/L	
cis-1,2 Dichloroethylene	✔		0					70 µg/L	---
Vinyl Chloride	✔		1	18260C	1.0	<DL	<DL	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✔		2	18260C	5.0	<DL	<DL	190 µg/L	
Diethylhexyl phthalate	✔		2	18260C	5.0	<DL	<DL	101 µg/L	
Total Group I PAHs		✔	2	18260C	0.20	<DL	<DL	1.0 µg/L	---
Benzo(a)anthracene		✔	2	18260C	0.20	<DL	<DL	As Total PAHs	
Benzo(a)pyrene		✔	2	18260C	0.20	<DL	<DL		
Benzo(b)fluoranthene		✔	2	18260C	0.20	<DL	<DL		
Benzo(k)fluoranthene		✔	2	18260C	0.20	<DL	<DL		
Chrysene		✔	2	18260C	0.20	<DL	<DL		
Dibenzo(a,h)anthracene		✔	2	18260C	0.20	<DL	<DL		
Indeno(1,2,3-cd)pyrene		✔	2	18260C	0.20	<DL	<DL		

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs		✔	2	18260C	0.20	<DL	<DL	100 µg/L	---
Naphthalene		✔	2	18260C	2.5	16	14.5	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔		2	5,608	0.250	<DL	<DL	0.000064 µg/L	---
Pentachlorophenol	✔		2	18270D-SI	0.80	<DL	<DL	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔		2	74,1664A	400	<DL	<DL	5.0 mg/L	---
Ethanol	✔		0					Report mg/L	---
Methyl-tert-Butyl Ether	✔		2	1,8260C	1.0	<DL	<DL	70 µg/L	
tert-Butyl Alcohol	✔		2	1,8260C	10	<DL	<DL	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔		2	1,8260C	2.0	<DL	<DL	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
Ph		✔	1	YSI		8.28			
Salinity		✔	1			20 SU	20 SU		
Temp		✔	1	YSI		11.8 C			
Dissolved Iron		✔	1	EPA	50	15000			
Dissolved Lead		✔	1	EPA	10	<DL	<DL		
Dissolved Zinc		✔	1	EPA	50	640			

E. Treatment system information

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

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

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
Settling tank and bag filters, if necessary, Ion exchange resin filter

Identify each major treatment component (check any that apply):
■ Fractionation tanks☐ Equalization tank ☐ Oil/water separator ☐ Mechanical filter ☐ Media filter
☐ Chemical feed tank ☐ Air stripping unit ■ Bag filter ☐ Other; if so, specify:

Indicate if either of the following will occur (check any that apply):
☐ Chlorination ☐ De-chlorination

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: Frac Tank Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	100
Provide the proposed maximum effluent flow in gpm.	100
Provide the average effluent flow in gpm.	25
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	

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

F. Chemical and additive information

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

☐ Algaecides/biocides ☐ Antifoams ☐ Coagulants ☐ Corrosion/scale inhibitors ☐ Disinfectants ☐ Flocculants ☐ Neutralizing agents ☐ Oxidants ☐ Oxygen ☐ scavengers ☐ pH conditioners ☐ Bioremedial agents, including microbes ☐ Chlorine or chemicals containing chlorine ☐ Other; if so, specify:
n/a

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

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

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

G. Endangered Species Act eligibility determination

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

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

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

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

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

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

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

H. National Historic Preservation Act eligibility determination

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

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

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

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

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

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

I. Supplemental information

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

Red Knot Map

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 has been developed in accordance with good engineering practices following section Part 2.5 of the RGP and shall 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 ☐ Submission of documentation to and approval from BWSC in tandem with this NOI
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: Eric Harstad	Date: 6/2/2017
Print Name and Title: Eric Harstad	

Boston Water and Sewer Commission
980 Harrison Avenue
Boston, MA 02119-2540

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: John Moriarty & Associates, Inc. Address: 3 Church Street, Winchester, MA 01890

Phone Number: 781-729-3900 ext. 342 Fax number: _____

Contact person name: Eric Harstad Title: Project Manager

Cell number: 617-777-2178 Email address: eharstad@jm-a.com

Permit Request (check one): ☒ New Application ☐ Permit Extension ☐ Other (Specify): _____

Owner's Information (if different from above):

Owner of property being dewatered: 399 Congress LLC

Owner's mailing address: 2200 Biscayne Boulevard, Miami, FL 33137 Phone number: 212-288-9378 ext. 1612

Location of Discharge & Proposed Treatment System(s):

Street number and name: 399 Congress Street Neighborhood Seaport

Discharge is to a: ☐ Sanitary Sewer ☐ Combined Sewer ☒ Storm Drain ☐ Other (specify): _____

Describe Proposed Pre-Treatment System(s): Sediment Settling Tank and Bag Filters (Ion Resin Exchange if Necessary)

BWSC Outfall No. SDO 202 Receiving Waters Boston Inner Harbor

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Temporary Discharges (Provide Anticipated Dates of Discharge): From July 1, 2017 To May 1, 2018

☐ Groundwater Remediation	☐ Tank Removal/Installation	☒ Foundation Excavation
☐ Utility/Manhole Pumping	☐ Test Pipe	☐ Trench Excavation
☐ Accumulated Surface Water	☐ Hydrogeologic Testing	☐ Other _____

Permanent Discharges

☐ Foundation Drainage	☐ Crawl Space/Footing Drain
☐ Accumulated Surface Water	☐ Non-contact/Uncontaminated Cooling
☐ Non-contact/Uncontaminated Process	☐ Other; _____

---

1. Attach a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. the sewer pipe or catch basin). Include meter type, meter number, size, make and start reading. Note. All discharges to the Commission's sewer system will be assessed current sewer charges.
2. If discharging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge permit or application.
3. If discharging to a separate storm drain, attach a copy of EPA's NPDES Permit or NOI application, or NPDES Permit exclusion letter for the discharge, as well as other relevant information.
4. Dewatering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary permits from MWRA or EPA.

Submit Completed Application to: Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue, Boston, MA 02119
Attn: Matthew Tuttle, Engineering Customer Service
E-mail: tuttlemp@bwsc.org
Phone: 617-989-7204 Fax: 617-989-7716

Signature of Authorized Representative for Property Owner: Eric Harstad Date: 6/2/2017

APPENDIX C:

DEP PRIORITY RESOURCES MAP

USGS STREAMFLOW STATISTICS REPORT

DILUTION FACTOR AND WQBEL CALCULATIONS

ADDITIONAL NOI SUPPORT INFORMATION

MassDEP - Bureau of Waste Site Cleanup

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

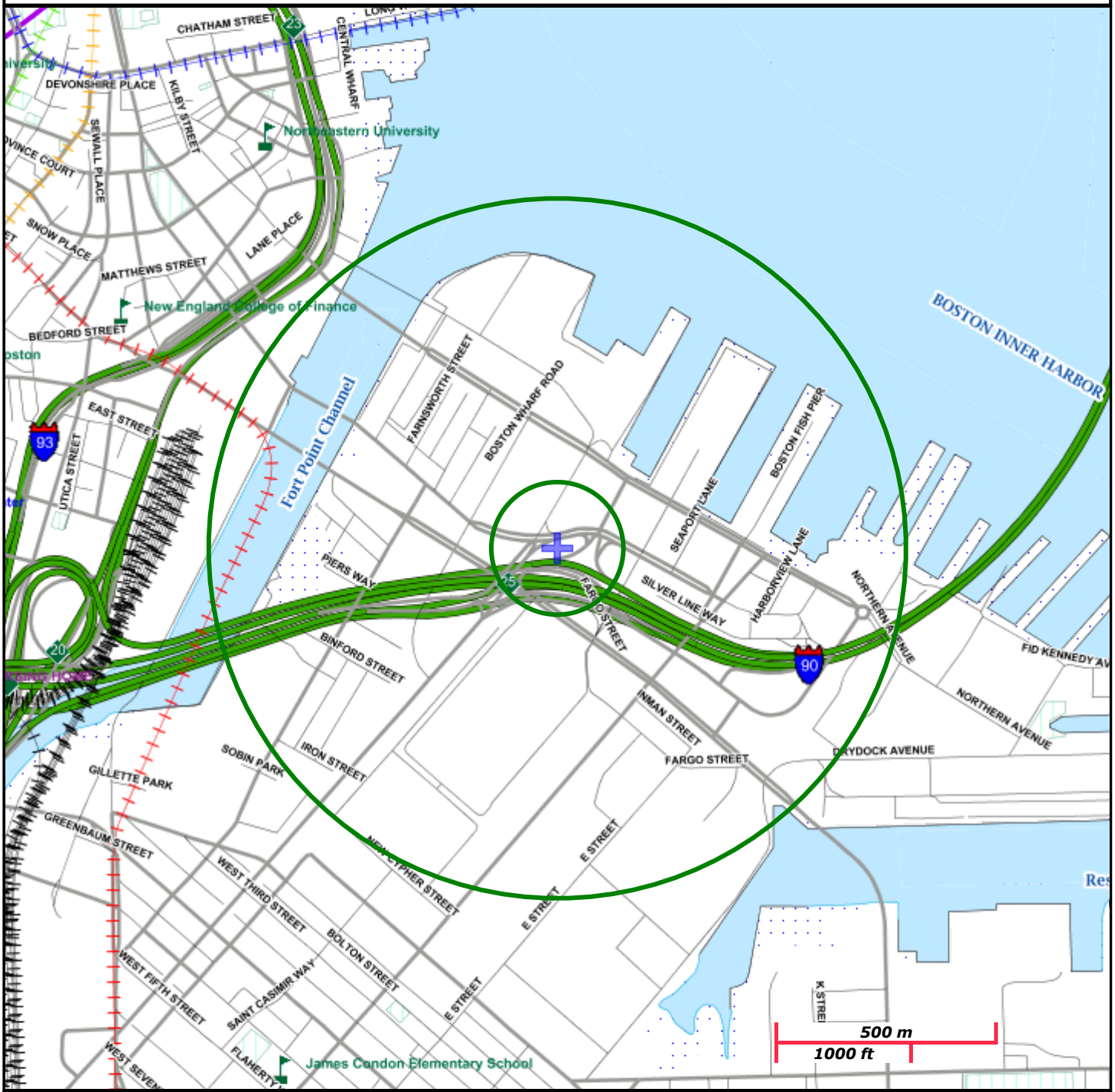
Site Information:

399 CONGRESS ST BOSTON, MA

NAD83 UTM Meters:
4690553mN , 331583mE (Zone: 19)
November 18, 2016

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

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



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

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

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

Aquifers: Medium Yield, High Yield, EPA Sole Source

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

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

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

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

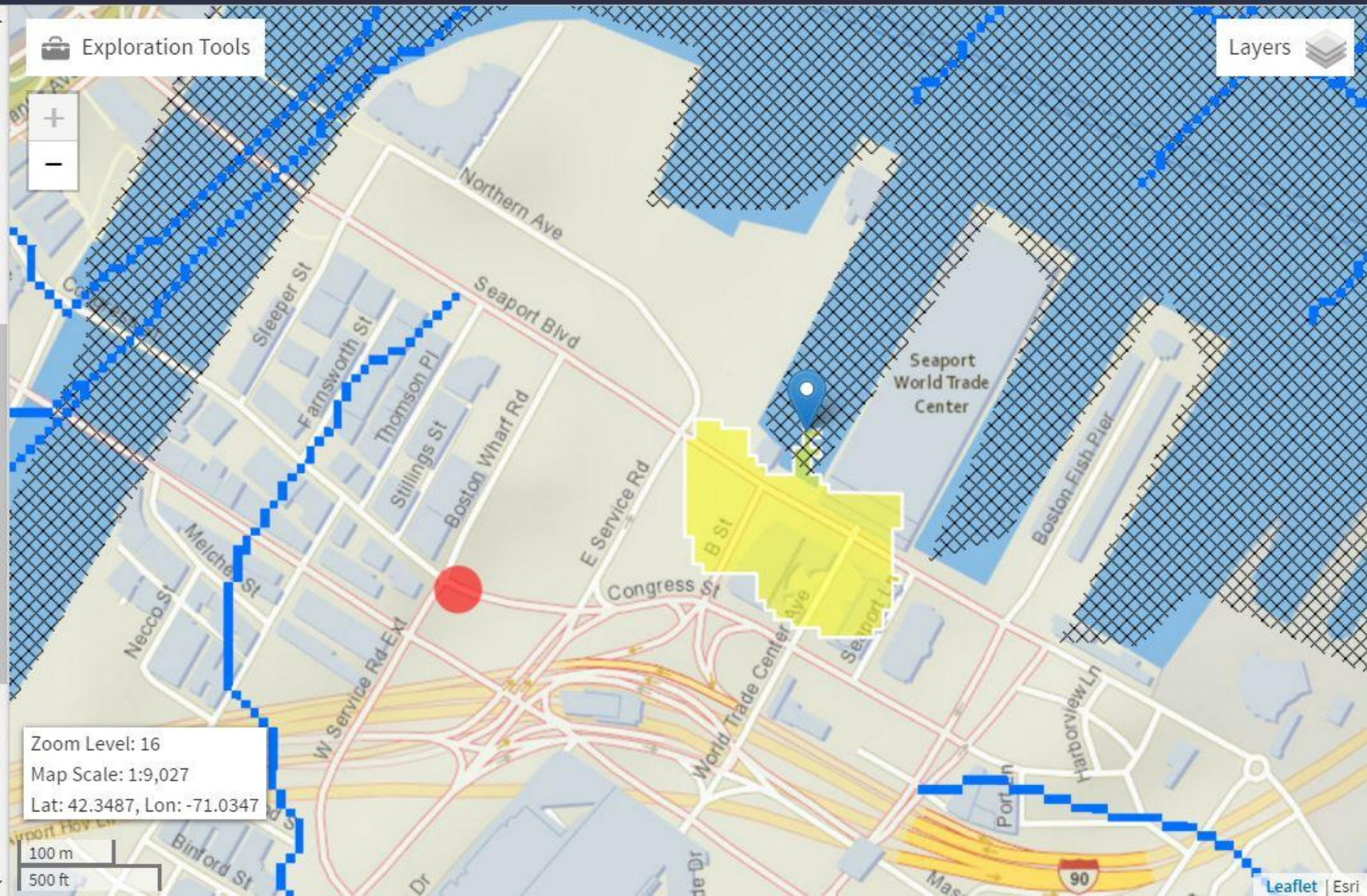
reports you wish to generate. Then click the "Build Report" button

Hide Basin Characteristics

Basin Characteristics can be edited here

Caclulate Missing Parameters

Parameter	Value
DRNAREA	0.0145
BSLDEM250	0
DRFTPERSTR	-10000
MAREGION	



Enter number values in green boxes below

Enter values in the units specified

↓

2.3	Q_R = Enter upstream flow in **MGD**
0.7	Q_P = Enter discharge flow in **MGD**
0	Downstream 7Q10

Enter a dilution factor, if other than zero

↓

0

Enter values in the units specified

↓

0	C_d = Enter influent hardness in **mg/L** $CaCO_3$
0	C_s = Enter receiving water hardness in **mg/L** $CaCO_3$

Enter **receiving water** concentrations in the units specified

↓

11.8	pH in **Standard Units**
8.28	Temperature in **°C**
0.095	Ammonia in **mg/L**
0	Hardness in **mg/L** $CaCO_3$
20	Salinity in **ppt**
0	Antimony in **µg/L**
0	Arsenic in **µg/L**
0	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
0	Copper in **µg/L**
136	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
72.1	Zinc in **µg/L**

Enter **influent** concentrations in the units specified

↓

0	TRC in **µg/L**
0	Ammonia in **mg/L**
0	Antimony in **µg/L**
2	Arsenic in **µg/L**
0	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
3.8	Copper in **µg/L**
15000	Iron in **µg/L**
4	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
69.8	Zinc in **µg/L**
0	Cyanide in **µg/L**
0	Phenol in **µg/L**
0	Carbon Tetrachloride in **µg/L**
0	Tetrachloroethylene in **µg/L**
0	Total Phthalates in **µg/L**
0	Diethylhexylphthalate in **µg/L**
0	Benzo(a)anthracene in **µg/L**
0	Benzo(a)pyrene in **µg/L**
0	Benzo(b)fluoranthene in **µg/L**
0	Benzo(k)fluoranthene in **µg/L**
0	Chrysene in **µg/L**
0	Dibenzo(a,h)anthracene in **µg/L**
0	Indeno(1,2,3-cd)pyrene in **µg/L**
0	Methyl-tert butyl ether in **µg/L**

Notes:

Freshwater: critical low flow equal to the 7Q10; enter alternate low flow if approved by the State
Saltwater (estuarine and marine): enter critical low flow if approved by the State; enter 0 if no entry
Discharge flow is equal to the design flow or 1 MGD, whichever is less
Optional entry for Q_r; leave 0 if no entry

Saltwater (estuarine and marine): only if approved by the State
Leave 0 if no entry

pH, temperature, and ammonia required for all discharges
Hardness required for freshwater
Salinity required for saltwater (estuarine and marine)
Metals required for all discharges if present and if dilution factor is > 1
Enter 0 if non-detect or testing not required

if >1 sample, enter maximum
if >10 samples, may enter 95th percentile
Enter 0 if non-detect or testing not required

I. Dilution Factor Calculation Method

A. 7Q10

Refer to Appendix V for determining critical low flow; must be approved by State before use in calculatic

B. Dilution Factor

Calculated as follows:

$$Df = \frac{Q_R + Q_P}{Q_P}$$

Q_R = 7Q10 in MGD

Q_P = Discharge flow, in MGD

II. Effluent Limitation Calculation Method

A. Calculate Water Quality Criterion:

Step 1. Downstream hardness, calculated as follows:

$$C_r = \frac{Q_d C_d + Q_s C_s}{Q_r}$$

C_r = Downstream hardness in mg/L

Q_d = Discharge flow in MGD

C_d = Discharge hardness in mg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Upstream (receiving water) hardness in mg/L

Q_r = Downstream receiving water flow in MGD

Step 2. Total recoverable water quality criteria for hardness-dependent metals, calculated as follows:

Total Recoverable Criteria = $\exp\{m_c [\ln(h)] + b_c\}$

m_c = Pollutant-specific coefficient (m_a for silver)

b_c = Pollutant-specific coefficient (b_a for silver)

ln = Natural logarithm

h = Hardness calculated in Step 1

Step 3. Total recoverable water quality criteria for non-hardness-dependent metals, calculated as follows:

$$\text{WQC in } \mu g/L = \frac{\text{dissolved WQC in } \mu g/L}{\text{dissolved to total recoverable factor}}$$

B. Calculate WQBEL:

Step 1. WQBEL calculated as follows for parameter sampled in and detected in the receiving water:

$$C_d = \frac{Q_r C_r - Q_s C_s}{Q_d}$$

C_r = Water quality criterion in µg/L
Q_d = Discharge flow in MGD
C_d = WQBEL in µg/L
Q_s = Upstream flow (7Q10) in MGD
C_s = Ustream (receiving water) concentration in µg/L
Q_r = Downstream receiving water flow in MGD

Step 2. WQBEL calculated as follows for parameter not sampled in or not detected in receiving water:

$$C_d = (Q_r/Q_d) \times C_r$$

C_r = Water quality criterion in µg/L
Q_d = Discharge flow in MGD
Q_r = Downstream receiving water flow in MGD

C. Determine if a WQBEL applies:

Step 1. For parameter sampled in and detected in receiving water, downstream concentrations calculated

$$C_r = \frac{Q_d C_d + Q_s C_s}{Q_r}$$

C_r = Downstream concentration in µg/L

Q_d = Discharge flow in MGD

C_d = Influent concentration in µg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Upstream (receiving water) concentration in µg/L

Q_r = Downstream receiving water flow in MGD

The WQBEL applies if:

1) the projected downstream concentration calculated in accordance with
and the discharge concentration of a parameter are greater than the WQ
that parameter in accordance with II.A, above

AND

2) the WQBEL determined for that parameter in accordance with II.B, a
the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwise, the TI
of the RGP for that parameter applies.

Step 2. For a parameter not sampled in or not detected in receiving water, the WQBEL applies if:

1) the discharge concentration of a parameter is greater than the WQBE
that parameter in accordance with II.A or II.B, above;

AND

2) the WQBEL determined for that parameter in accordance with II.A o
less than the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwi

Part 2.1.1 of the RGP for that parameter applies.

Dilution Factor	4.3			
	TBEL applies if bolded		WQBEL applies if bolded	
A. Inorganics				
Ammonia	**Report**	mg/L	---	
Chloride	**Report**	µg/L	---	
Total Residual Chlorine	0.2	mg/L	**47**	µg/L
Total Suspended Solids	**30**	mg/L	---	
Antimony	**206**	µg/L	2743	µg/L
Arsenic	**104**	µg/L	43	µg/L
Cadmium	10.2	µg/L	#NUM!	µg/L
Chromium III	323	µg/L	#NUM!	µg/L
Chromium VI	**323**	µg/L	49.0	µg/L
Copper	242	µg/L	#NUM!	µg/L
Iron	5000	µg/L	**3839**	µg/L
Lead	160	µg/L	#NUM!	µg/L
Mercury	**0.739**	µg/L	3.88	µg/L
Nickel	1450	µg/L	#NUM!	µg/L
Selenium	**235.8**	µg/L	21.4	µg/L
Silver	35.1	µg/L	#NUM!	µg/L
Zinc	420	µg/L	#NUM!	µg/L
Cyanide	**178**	mg/L	22.3	µg/L
B. Non-Halogenated VOCs				
Total BTEX	**100**	µg/L	---	
Benzene	**5.0**	µg/L	---	
1,4 Dioxane	**200**	µg/L	---	
Acetone	**7970**	µg/L	---	
Phenol	**1,080**	µg/L	1286	µg/L
C. Halogenated VOCs				
Carbon Tetrachloride	**4.4**	µg/L	6.9	µg/L
1,2 Dichlorobenzene	**600**	µg/L	---	
1,3 Dichlorobenzene	**320**	µg/L	---	
1,4 Dichlorobenzene	**5.0**	µg/L	---	
Total dichlorobenzene	**---**	µg/L	---	
1,1 Dichloroethane	**70**	µg/L	---	
1,2 Dichloroethane	**5.0**	µg/L	---	
1,1 Dichloroethylene	**3.2**	µg/L	---	
Ethylene Dibromide	**0.05**	µg/L	---	
Methylene Chloride	**4.6**	µg/L	---	
1,1,1 Trichloroethane	**200**	µg/L	---	
1,1,2 Trichloroethane	**5.0**	µg/L	---	
Trichloroethylene	**5.0**	µg/L	---	
Tetrachloroethylene	**5.0**	µg/L	14.1	µg/L
cis-1,2 Dichloroethylene	**70**	µg/L	---	
Vinyl Chloride	**2.0**	µg/L	---	

D. Non-Halogenated SVOCs				
Total Phthalates	190	µg/L	---	µg/L
Diethylhexyl phthalate	**101**	µg/L	9.4	µg/L
Total Group I Polycyclic Aromatic Hvdrocarbons	**1.0**	µg/L	---	
Benzo(a)anthracene	**1.0**	µg/L	0.0163	µg/L
Benzo(a)pyrene	**1.0**	µg/L	0.0163	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	0.0163	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.0163	µg/L
Chrysene	**1.0**	µg/L	0.0163	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.0163	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.0163	µg/L
Total Group II Polycyclic Aromatic Hvdrocarbons	**100**	µg/L	---	
Naphthalene	**20**	µg/L	---	
E. Halogenated SVOCs				
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---	
Pentachlorophenol	**1.0**	µg/L	---	
F. Fuels Parameters				
Total Petroleum Hydrocarbons	**5.0**	mg/L	---	
Ethanol	**Report**	mg/L	---	
Methyl-tert-Butyl Ether	**70**	µg/L	86	µg/L
tert-Butyl Alcohol	**120**	µg/L	---	
tert-Amyl Methyl Ether	**90**	µg/L	---	

I. Dilution Factor Calculation Method

A. 7Q10

No flow assumed at critical low flow for saltwater unless otherwise approved by the State

B. Dilution Factor

No dilution assumed for saltwater, unless otherwise approved by the State

II. Effluent Limitation Calculation Method

A. Calculate Water Quality Criterion:

Step 1. Not applicable to saltwater

Step 2. Not applicable to saltwater

Step 3. Total recoverable water quality criteria for dissolved metals, calculated as follows:

$$\text{WQC in } \mu g/L = \frac{\text{dissolved WQC in } \mu g/L}{\text{dissolved to total recoverable factor}}$$

B. Calculate WQBEL:

Step 1. WQBEL calculated as follows for parameter sampled in and detected in the receiving water:

$$C_d = \frac{Q_r C_r - Q_s C_s}{Q_d}$$

C_r = Water quality criterion in µg/L

Q_d = Discharge flow in MGD

C_d = WQBEL in µg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Ustream (receiving water) concentration in µg/L

Q_r = Downstream receiving water flow in MGD

Step 2. WQBEL calculated as follows for parameter not sampled in or not detected in receiving water:

$$C_d = (Q_r/Q_d) \times C_r$$

C_r = Water quality criterion in µg/L

Q_d = Discharge flow in MGD

Q_r = Downstream receiving water flow in MGD

C. Determine if a WQBEL applies:

Step 1. For parameter sampled in and detected in receiving water, downstream concentrations calculated

$$C_r = \frac{Q_d C_d + Q_s C_s}{Q_r}$$

C_r = Downstream concentration in µg/L

Q_d = Discharge flow in MGD

C_d = Influent concentration in µg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Upstream (receiving water) concentration in µg/L

Q_r = Downstream receiving water flow in MGD

The WQBEL applies if:

1) the projected downstream concentration calculated in accordance with and the discharge concentration of a parameter is greater than the WQC that parameter in accordance with II.A, above

AND

2) the WQBEL determined for that parameter in accordance with II.B, a the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwise, the TI of the RGP for that parameter applies.

Step 2. For a parameter not detected in or not sampled in receiving water, the WQBEL applies if:

1) the discharge concentration of a parameter is greater than the WQBE that parameter in accordance with II.A or II.B, above;

AND

2) the WQBEL determined for that parameter in accordance with II.A o less than the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwi Part 2.1.1 of the RGP for that parameter applies.

Dilution Factor	4.3			
	TBEL applies if bolded		WQBEL applies if bolded	
A. Inorganics				
Ammonia	**Report**	mg/L	---	
Chloride	**Report**	µg/L	---	
Total Residual Chlorine	0.2	mg/L	**32.1**	µg/L
Total Suspended Solids	**30**	mg/L	---	
Antimony	**206**	µg/L	2743	µg/L
Arsenic	**104**	µg/L	154	µg/L
Cadmium	**10.2**	µg/L	37.9	µg/L
Chromium III	**323**	µg/L	428.6	µg/L
Chromium VI	**323**	µg/L	216	µg/L
Copper	**242**	µg/L	16.0	µg/L
Iron	**5000**	µg/L	---	µg/L
Lead	**160**	µg/L	36.5	µg/L
Mercury	**0.739**	µg/L	4.74	µg/L
Nickel	**1450**	µg/L	35.5	µg/L
Selenium	**235.8**	µg/L	305	µg/L
Silver	**35.1**	µg/L	9.6	µg/L
Zinc	**420**	µg/L	130	µg/L
Cyanide	**178**	mg/L	4.3	µg/L
B. Non-Halogenated VOCs				
Total BTEX	**100**	µg/L	---	
Benzene	**5.0**	µg/L	---	
1,4 Dioxane	**200**	µg/L	---	
Acetone	**7.97**	mg/L	---	
Phenol	**1,080**	µg/L	1286	µg/L
C. Halogenated VOCs				
Carbon Tetrachloride	**4.4**		6.9	µg/L
1,2 Dichlorobenzene	**600**	µg/L	---	
1,3 Dichlorobenzene	**320**	µg/L	---	
1,4 Dichlorobenzene	**5.0**	µg/L	---	
Total dichlorobenzene	**---**	µg/L	---	
1,1 Dichloroethane	**70**	µg/L	---	
1,2 Dichloroethane	**5.0**	µg/L	---	
1,1 Dichloroethylene	**3.2**	µg/L	---	
Ethylene Dibromide	**0.05**	µg/L	---	
Methylene Chloride	**4.6**	µg/L	---	
1,1,1 Trichloroethane	**200**	µg/L	---	
1,1,2 Trichloroethane	**5.0**	µg/L	---	
Trichloroethylene	**5.0**	µg/L	---	
Tetrachloroethylene	**5.0**	µg/L	14.1	µg/L
cis-1,2 Dichloroethylene	**70**	µg/L	---	
Vinyl Chloride	**2.0**	µg/L	---	

D. Non-Halogenated SVOCs				
Total Phthalates	190	µg/L	---	µg/L
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Total Group I Polycyclic Aromatic Hvdrocarbons	**1.0**	µg/L	---	
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Benzo(b)fluoranthene	**1.0**	µg/L	0.0163	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.0163	µg/L
Chrysene	**1.0**	µg/L	0.0163	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.0163	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.0163	µg/L
Total Group II Polycyclic Aromatic Hvdrocarbons	**100**	µg/L	---	
Naphthalene	**20**	µg/L	---	
E. Halogenated SVOCs				
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---	
Pentachlorophenol	**1.0**	µg/L	---	
F. Fuels Parameters				
Total Petroleum Hydrocarbons	**5.0**	mg/L	---	
Ethanol	**Report**	mg/L	---	
Methyl-tert-Butyl Ether	**70**	µg/L	86	µg/L
tert-Butyl Alcohol	**120**	µg/L	---	
tert-Amyl Methyl Ether	**90**	µg/L	---	

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street No: 399; Street Name: Congress St; Resource Type(s): Structure, Object, Burial Ground, Area, Building;

Inv. No.	Property Name	Street	Town	Year

United States Department of the Interior

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

In Reply Refer To: June 20, 2017
Consultation Code: 05E1NE00-2017-SLI-1909
Event Code: 05E1NE00-2017-E-04178
Project Name: 399 Congress Street

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

To Whom It May Concern:

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

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 05E1NE00-2017-SLI-1909

Event Code: 05E1NE00-2017-E-04178

Project Name: 399 Congress Street

Project Type: DEVELOPMENT

Project Description: <1 acre

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.349037527478174N71.0446318174589W

Counties: Suffolk, MA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate 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. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Birds

NAME	STATUS
Red Knot *(Calidris canutus rufa)*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1864

Critical habitats

There are no critical habitats within your project area.

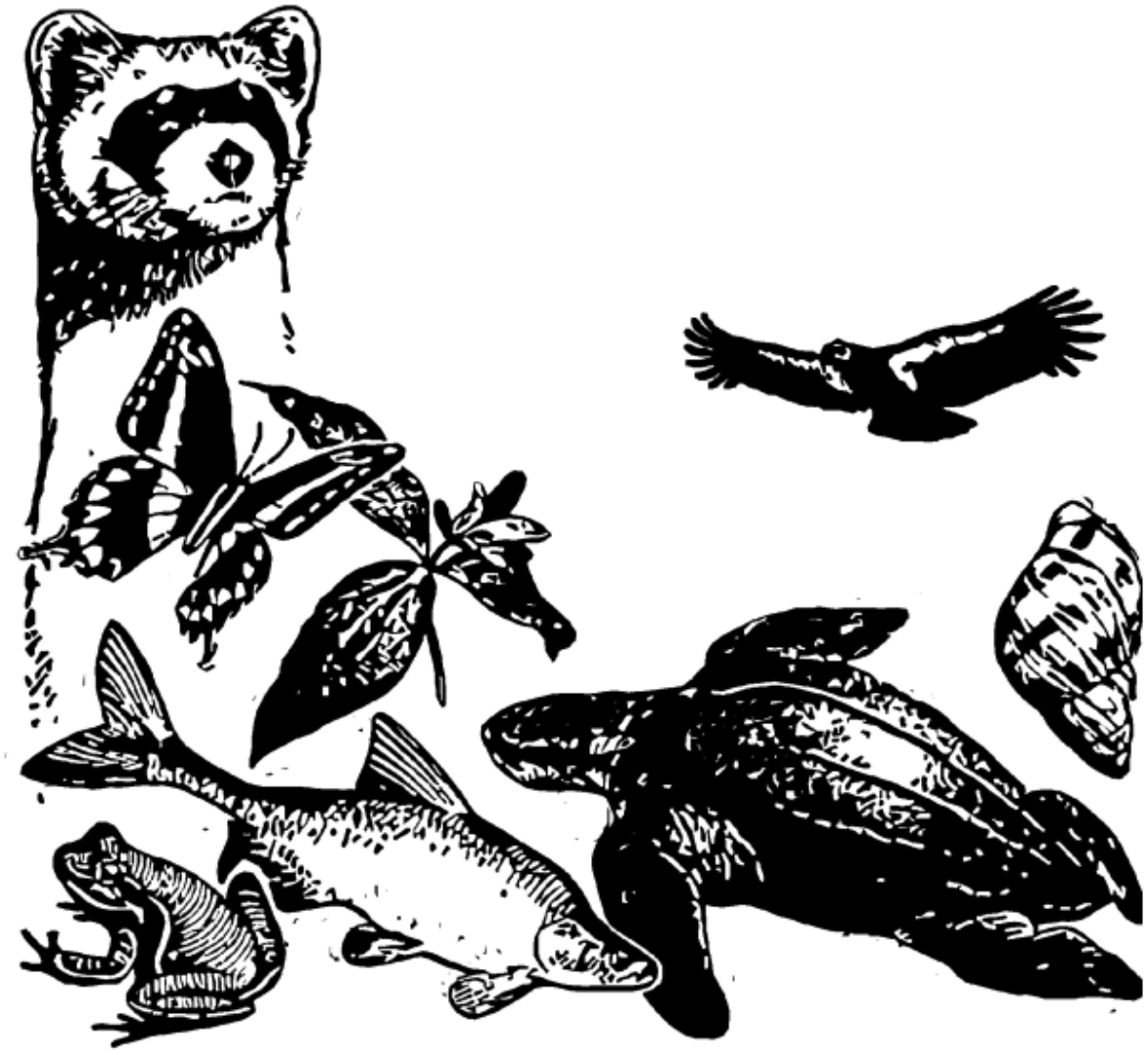
U.S. Fish & Wildlife Service

4540 - 399 Congress Street

IPaC Trust Resources Report

Generated November 17, 2016 12:51 PM MST, IPaC v3.0.9

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



IPaC - Information for Planning and Conservation (https://ecos.fws.gov/ipac/): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process.

Table of Contents

U.S. Fish & Wildlife Service

IPaC Trust Resources Report

NAME

4540 - 399 Congress Street

LOCATION

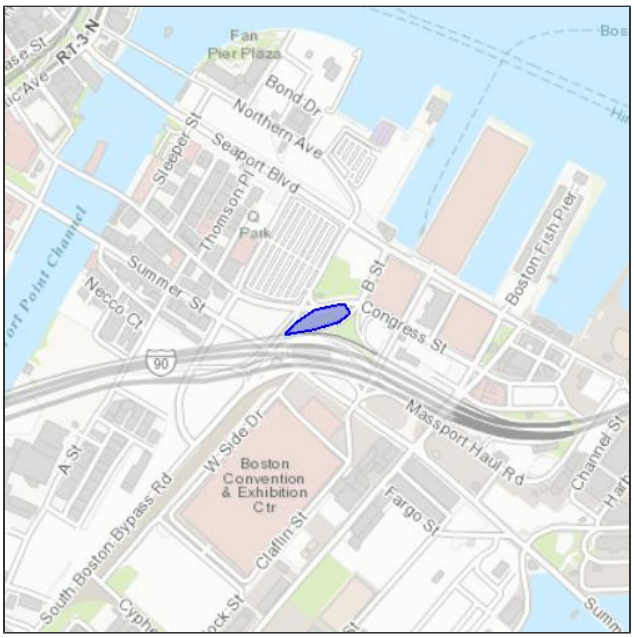
Suffolk County, Massachusetts

DESCRIPTION

RGP

IPAC LINK

https://ecos.fws.gov/ipac/project/V3R7T-UNZ2Z-APDJG-UXDXD-U7RZBY



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

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

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the Endangered Species Program of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

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 Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Birds

Red Knot Calidris canutus rufa — Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0DM

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.[1] 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. 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 following species of migratory birds could potentially be affected by activities in this location:

American Oystercatcher Haematopus palliatus — Bird of conservation concern
On Land Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G8

Bald Eagle Haliaeetus leucocephalus — Bird of conservation concern
On Land Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Black-billed Cuckoo Coccyzus erythropthalmus — Bird of conservation concern
On Land Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HI

Hudsonian Godwit Limosa haemastica — Bird of conservation concern
At Sea Season: Migrating

Olive-sided Flycatcher Contopus cooperi — Bird of conservation concern

On Land Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN

Peregrine Falcon Falco peregrinus — Bird of conservation concern

On Land Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU

Purple Sandpiper Calidris maritima — Bird of conservation concern

On Land Season: Wintering

Short-eared Owl Asio flammeus — Bird of conservation concern

On Land Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD

Willow Flycatcher Empidonax traillii — Bird of conservation concern

On Land Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6

Wood Thrush Hylocichla mustelina — Bird of conservation concern

On Land Season: Breeding

Worm Eating Warbler Helmitheros vermivorum — Bird of conservation concern

On Land Season: Breeding

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in 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.

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

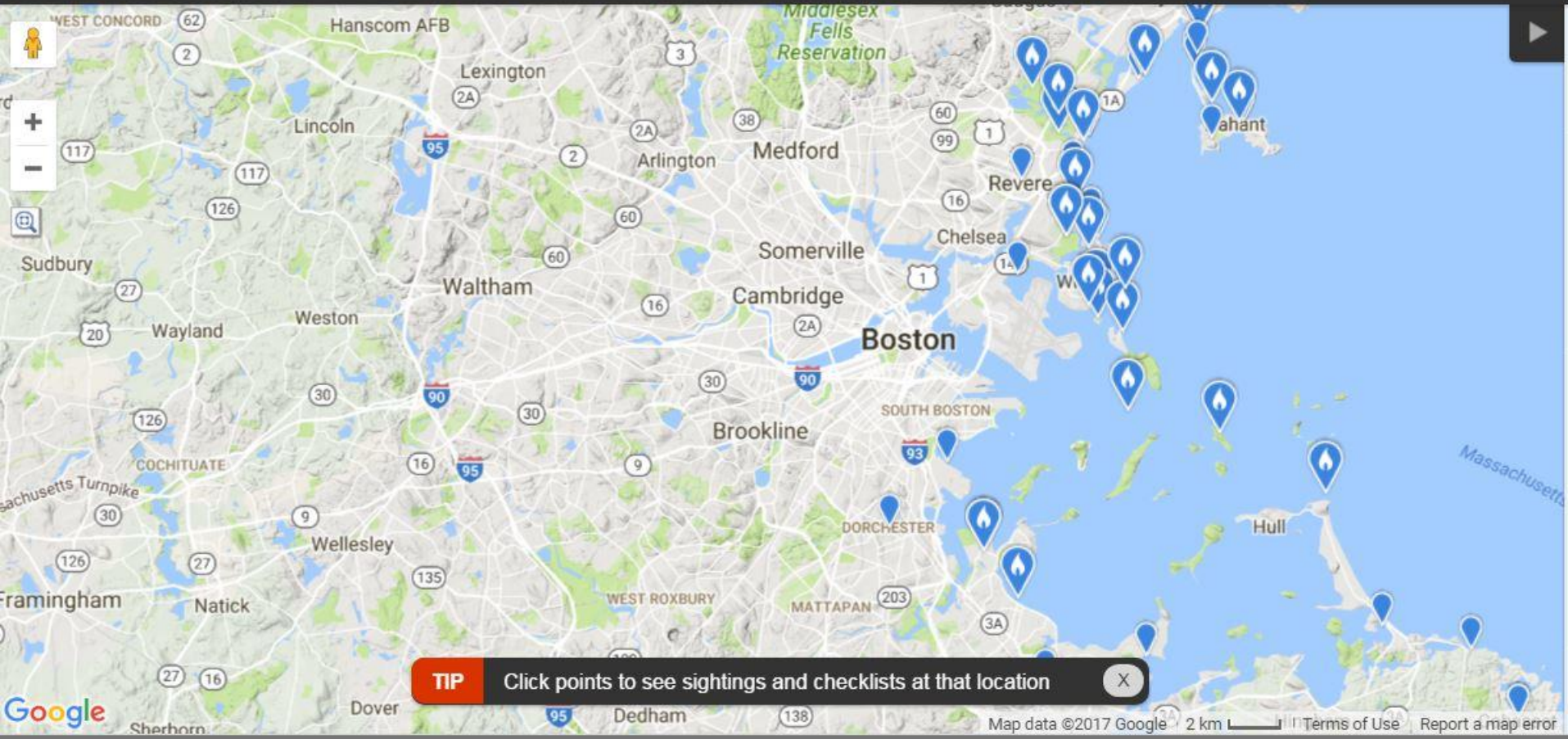
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid 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.

There are no wetlands in this location

Species: Red Knot | Date: Year-Round, All Years | Location: Enter place name or address...



TIP Click points to see sightings and checklists at that location X

Zoom Tool

Full Species Range

- Terrain
- Street
- Satellite
- Hybrid

Explore Rich Media
Only show locations with photos, audio, or video

RECENT OLDER (30+ DAYS)

Show Points Sooner
Display points at broader scales when possible (2000 points max)

Birding Hotspot

Personal Location

Table 2 - Groundwater Analytical Data
505 Congress Street
Boston, Massachusetts

LOCATION SAMPLING DATE LAB SAMPLE ID	NPDES RGP Freshwater	 Saltwater	RCGW-2-08	Units	CDM-3 8/9/2013 L1315364-01	Qual	TRIP BLANK 8/9/2013 L1315364-02	Qual
General Chemistry - Westborough Lab								
Solids, Total Suspended	30*	30*	-	mg/l	31		-	-
Anions by Ion Chromatography - Westborough Lab								
Chloride				mg/l	176		-	-
General Chemistry - Westborough Lab								
Cyanide, Total	0.0052	0.001	0.03	mg/l	0.005	U	-	-
Chlorine, Total Residual	0.011	0.0075	-	mg/l	0.02	U	-	-
TPH	5	5	5	mg/l	4	U	-	-
Phenolics, Total	-	-	-	mg/l	0.03	U	-	-
Chromium, Hexavalent	-	-	0.3	mg/l	0.01	U	-	-
Total Metals - Westborough Lab								
Antimony, Total	0.0056	0.0056	8	mg/l	0.001	U	-	-
Arsenic, Total	0.01	0.036	0.9	mg/l	0.00183		-	-
Cadmium, Total	0.0002	0.0089	0.004	mg/l	0.0002	U	-	-
Chromium, Total	60.2	150.3	0.3	mg/l	0.001	U	-	-
Copper, Total	0.0052	0.0037	100	mg/l	0.001	U	-	-
Iron, Total	1**	1**	-	mg/l	11		-	-
Lead, Total	0.0013	0.0085	0.01	mg/l	0.0005	U	-	-
Mercury, Total	0.0009	0.0011	0.02	mg/l	0.0002	U	-	-
Nickel, Total	0.029	0.0082	0.2	mg/l	0.00073		-	-
Selenium, Total	0.005	0.071	0.1	mg/l	0.005	U	-	-
Silver, Total	0.0012	0.0022	0.007	mg/l	0.0004	U	-	-
Zinc, Total	0.067	0.086	0.9	mg/l	0.01	U	-	-
Microextractables by GC - Westborough Lab								
1,2-Dibromo-3-chloropropane			1	mg/l	0.00001	U	-	-
1,2-Dibromoethane	0.0005	0.0005	0.002	mg/l	0.00001	U	-	-
Volatile Organics by GC/MS - Westborough Lab								
1,1,1,2-Tetrachloroethane			0.01	mg/l	0.0005	U	0.0005	U
1,1,1-Trichloroethane	0.2	0.2	4	mg/l	0.0005	U	0.0005	U
1,1,2,2-Tetrachloroethane			0.009	mg/l	0.0005	U	0.0005	U
1,1,2-Trichloroethane			0.9	mg/l	0.00075	U	0.00075	U
1,1-Dichloroethane	0.07	0.07	1	mg/l	0.00075	U	0.00075	U
1,1-Dichloroethene	0.0032	0.0032	0.08	mg/l	0.0005	U	0.0005	U
1,1-Dichloropropene				mg/l	0.0025	U	0.0025	U
1,2,3-Trichlorobenzene				mg/l	0.0025	U	0.0025	U
1,2,3-Trichloropropane			10	mg/l	0.005	U	0.005	U
1,2,4-Trichlorobenzene			2	mg/l	0.0025	U	0.0025	U
1,2,4-Trimethylbenzene			100	mg/l	0.0025	U	0.0025	U
1,2-Dibromo-3-chloropropane			1	mg/l	0.0025	U	0.0025	U
1,2-Dibromoethane	0.0005	0.0005	0.002	mg/l	0.002	U	0.002	U
1,2-Dichlorobenzene	0.6	0.6	2	mg/l	0.0025	U	0.0025	U
1,2-Dichloroethane			0.005	mg/l	0.0005	U	0.0005	U
1,2-Dichloropropane			0.003	mg/l	0.0018	U	0.0018	U
1,3,5-Trimethylbenzene			1	mg/l	0.0025	U	0.0025	U
1,3-Dichlorobenzene	0.32	0.32	2	mg/l	0.0025	U	0.0025	U
1,3-Dichloropropane			50	mg/l	0.0025	U	0.0025	U
1,4-Dichlorobenzene	0.005	0.005	0.2	mg/l	0.0025	U	0.0025	U
1,4-Dichlorobutane				mg/l	0.005	U	0.005	U
2,2-Dichloropropane				mg/l	0.0025	U	0.0025	U
2-Butanone			50	mg/l	0.005	U	0.005	U
2-Hexanone			10	mg/l	0.005	U	0.005	U
4-Methyl-2-pentanone			50	mg/l	0.005	U	0.005	U
Acetone			50	mg/l	0.005	U	0.005	U
Acrylonitrile				mg/l	0.005	U	0.005	U
Benzene	5	5	2	mg/l	0.0005	U	0.0005	U
Bromobenzene			10	mg/l	0.0025	U	0.0025	U
Bromochloromethane				mg/l	0.0025	U	0.0025	U
Bromodichloromethane			0.006	mg/l	0.0005	U	0.0005	U
Bromoform			0.7	mg/l	0.002	U	0.002	U
Bromomethane			0.007	mg/l	0.001	U	0.001	U
Carbon disulfide			10	mg/l	0.005	U	0.005	U
Carbon tetrachloride	0.0044	0.0044	0.002	mg/l	0.0005	U	0.0005	U
Chlorobenzene			0.2	mg/l	0.0005	U	0.0005	U

Table 2 - Groundwater Analytical Data
505 Congress Street
Boston, Massachusetts

LOCATION					CDM-3		TRIP BLANK	
SAMPLING DATE					8/9/2013		8/9/2013	
LAB SAMPLE ID	NPDES RGP		RCGW-2-08		L1315364-01		L1315364-02	
	Freshwater	Saltwater		Units		Qual		Qual
Chloroethane			10	mg/l	0.001	U	0.001	U
Chloroform			0.05	mg/l	0.00075	U	0.00075	U
Chloromethane			10	mg/l	0.0025	U	0.0025	U
cis-1,2-Dichloroethene			0.1	mg/l	0.0005	U	0.0005	U
cis-1,3-Dichloropropene			0.005	mg/l	0.0005	U	0.0005	U
Dibromochloromethane			0.02	mg/l	0.0005	U	0.0005	U
Dibromomethane			50	mg/l	0.005	U	0.005	U
Dichlorodifluoromethane			100	mg/l	0.005	U	0.005	U
Ethyl ether			10	mg/l	0.0025	U	0.0025	U
Ethyl methacrylate				mg/l	0.005	U	0.005	U
Ethylbenzene			5	mg/l	0.0005	U	0.0005	U
Hexachlorobutadiene			0.001	mg/l	0.0005	U	0.0005	U
Isopropylbenzene			100	mg/l	0.0005	U	0.0005	U
Methyl tert butyl ether	0.07	0.07	5	mg/l	0.001	U	0.001	U
Methylene chloride	0.0046	0.0046	10	mg/l	0.003	U	0.003	U
n-Butylbenzene				mg/l	0.0005	U	0.0005	U
n-Propylbenzene			10	mg/l	0.0005	U	0.0005	U
Naphthalene	0.02	0.02	1	mg/l	0.0025	U	0.0025	U
o-Chlorotoluene			10	mg/l	0.0025	U	0.0025	U
o-Xylene			5	mg/l	0.001	U	0.001	U
p-Chlorotoluene				mg/l	0.0025	U	0.0025	U
p-Isopropyltoluene			10	mg/l	0.0005	U	0.0005	U
p/m-Xylene			5	mg/l	0.001	U	0.001	U
sec-Butylbenzene				mg/l	0.0005	U	0.0005	U
Styrene			0.1	mg/l	0.001	U	0.001	U
Tert-Butyl Alcohol				mg/l	0.01	U		
tert-Butylbenzene			10	mg/l	0.0025	U	0.0025	U
Tertiary-Amyl Methyl Ether				mg/l	0.002	U		
Tetrachloroethene	0.005	0.005	0.05	mg/l	0.0005	U	0.0005	U
Tetrahydrofuran			50	mg/l	0.005	U	0.005	U
Toluene			40	mg/l	0.00075	U	0.00075	U
trans-1,2-Dichloroethene			0.09	mg/l	0.00075	U	0.00075	U
trans-1,3-Dichloropropene			0.005	mg/l	0.0005	U	0.0005	U
trans-1,4-Dichloro-2-butene				mg/l	0.0025	U	0.0025	U
Trichloroethene	0.005	0.005	0.03	mg/l	0.0005	U	0.0005	U
Trichlorofluoromethane			100	mg/l	0.0025	U	0.0025	U
Vinyl acetate			100	mg/l	0.005	U	0.005	U
Vinyl chloride	0.002	0.002	0.002	mg/l	0.001	U	0.001	U
Xylenes, Total			5	mg/l	0.001	U	0.001	U
TOTAL BTEX	0.1	0.1		mg/l				
TOTAL VOCs				mg/l	0.16105	U	0.14905	U
Volatile Organics by GC/MS-SIM - Westborough Lab								
1,4-Dioxane			6	mg/l	0.003	U	-	-
Semivolatile Organics by GC/MS - Westborough Lab								
1,2,4-Trichlorobenzene			2	mg/l	0.005	U	-	-
1,2-Dichlorobenzene			2	mg/l	0.002	U	-	-
1,3-Dichlorobenzene			2	mg/l	0.002	U	-	-
1,4-Dichlorobenzene			0.2	mg/l	0.002	U	-	-
2,4,5-Trichlorophenol			3	mg/l	0.005	U	-	-
2,4,6-Trichlorophenol			0.5	mg/l	0.005	U	-	-
2,4-Dichlorophenol			2	mg/l	0.005	U	-	-
2,4-Dimethylphenol			40	mg/l	0.005	U	-	-
2,4-Dinitrophenol			20	mg/l	0.02	U	-	-
2,4-Dinitrotoluene			20	mg/l	0.005	U	-	-
2,6-Dinitrotoluene			10	mg/l	0.005	U	-	-
2-Chlorophenol			7	mg/l	0.002	U	-	-
2-Methylphenol			50	mg/l	0.005	U	-	-
2-Nitroaniline				mg/l	0.005	U	-	-
2-Nitrophenol			10	mg/l	0.01	U	-	-
3,3'-Dichlorobenzidine			2	mg/l	0.005	U	-	-
3-Methylphenol/4-Methylphenol			50	mg/l	0.005	U	-	-
3-Nitroaniline				mg/l	0.005	U	-	-
4,6-Dinitro-o-cresol			5	mg/l	0.01	U	-	-
4-Bromophenyl phenyl ether			10	mg/l	0.002	U	-	-

Table 2 - Groundwater Analytical Data
505 Congress Street
Boston, Massachusetts

LOCATION					CDM-3		TRIP BLANK	
SAMPLING DATE					8/9/2013		8/9/2013	
LAB SAMPLE ID	NPDES RGP		RCGW-2-08		L1315364-01		L1315364-02	
	Freshwater	Saltwater		Units		Qual		Qual
4-Chloroaniline			0.3	mg/l	0.005	U	-	-
4-Chlorophenyl phenyl ether			100	mg/l	0.002	U	-	-
4-Nitroaniline			100	mg/l	0.005	U	-	-
4-Nitrophenol			10	mg/l	0.01	U	-	-
Aniline			100	mg/l	0.002	U	-	-
Azobenzene				mg/l	0.002	U	-	-
Benzidine				mg/l	0.02	U	-	-
Benzoic Acid				mg/l	0.05	U	-	-
Benzyl Alcohol				mg/l	0.002	U	-	-
Bis(2-chloroethoxy)methane			50	mg/l	0.005	U	-	-
Bis(2-chloroethyl)ether			0.03	mg/l	0.002	U	-	-
Bis(2-chloroisopropyl)ether			0.1	mg/l	0.002	U	-	-
Bis(2-ethylhexyl)phthalate	0.006	0.006	50	mg/l	0.003	U	-	-
Butyl benzyl phthalate			10	mg/l	0.005	U	-	-
Carbazole				mg/l	0.002	U	-	-
Di-n-butylphthalate			5	mg/l	0.005	U	-	-
Di-n-octylphthalate			100	mg/l	0.005	U	-	-
Dibenzofuran			10	mg/l	0.002	U	-	-
Diethyl phthalate			9	mg/l	0.005	U	-	-
Dimethyl phthalate			50	mg/l	0.005	U	-	-
Hexachlorocyclopentadiene			5	mg/l	0.02	U	-	-
Isophorone			10	mg/l	0.005	U	-	-
n-Nitrosodimethylamine			5	mg/l	0.002	U	-	-
NDPA/DPA			10	mg/l	0.002	U	-	-
Nitrobenzene			50	mg/l	0.002	U	-	-
p-Chloro-m-cresol			100	mg/l	0.002	U	-	-
Phenol			2	mg/l	0.005	U	-	-
Pyridine				mg/l	0.005	U	-	-
TOTAL SVOCs				mg/l	0.292	U	-	-
Semivolatile Organics by GC/MS-SIM - Westborough Lab								
1-Methylnaphthalene				mg/l	0.0002	U	-	-
2-Chloronaphthalene			100	mg/l	0.0002	U	-	-
2-Methylnaphthalene			2	mg/l	0.0002	U	-	-
Acenaphthene			6	mg/l	0.0002	U	-	-
Acenaphthylene			0.04	mg/l	0.0002	U	-	-
Anthracene			0.03	mg/l	0.0002	U	-	-
Benzo(a)anthracene	3.8×10^{-6}	3.8×10^{-6}	1	mg/l	0.0002	U	-	-
Benzo(a)pyrene	3.8×10^{-6}	3.8×10^{-6}	0.5	mg/l	0.0002	U	-	-
Benzo(b)fluoranthene	3.8×10^{-6}	3.8×10^{-6}	0.4	mg/l	0.0002	U	-	-
Benzo(ghi)perylene	3.8×10^{-6}	3.8×10^{-6}	0.02	mg/l	0.0002	U	-	-
Benzo(k)fluoranthene	3.8×10^{-6}	3.8×10^{-6}	0.1	mg/l	0.0002	U	-	-
Chrysene	3.8×10^{-6}	3.8×10^{-6}	0.07	mg/l	0.0002	U	-	-
Dibenzo(a,h)anthracene	3.8×10^{-6}	3.8×10^{-6}	0.04	mg/l	0.0002	U	-	-
Fluoranthene			0.2	mg/l	0.0002	U	-	-
Fluorene			0.04	mg/l	0.0002	U	-	-
Hexachlorobenzene			0.001	mg/l	0.0008	U	-	-
Hexachlorobutadiene			0.001	mg/l	0.0005	U	-	-
Hexachloroethane			0.1	mg/l	0.0008	U	-	-
Indeno(1,2,3-cd)Pyrene	3.8×10^{-6}	3.8×10^{-6}	0.1	mg/l	0.0002	U	-	-
Naphthalene			1	mg/l	0.0002	U	-	-
Pentachlorophenol			0.2	mg/l	0.0008	U	-	-
Phenanthrene			10	mg/l	0.0002	U	-	-
Pyrene			0.02	mg/l	0.0002	U	-	-
TOTAL PAHs	0.01	0.01		mg/l	0.0026	U		
TOTAL SVOCs (by SIM)				mg/l	0.0067	U	-	-

Table 2 - Groundwater Analytical Data
505 Congress Street
Boston, Massachusetts

LOCATION SAMPLING DATE LAB SAMPLE ID	NPDES RGP Freshwater	 Saltwater	RCGW-2-08	Units	CDM-3 8/9/2013 L1315364-01	Qual	TRIP BLANK 8/9/2013 L1315364-02	Qual
Polychlorinated Biphenyls by GC - Westborough Lab								
Aroclor 1016			0.005	mg/l	0.00025	U	-	-
Aroclor 1221			0.005	mg/l	0.00025	U	-	-
Aroclor 1232			0.005	mg/l	0.00025	U	-	-
Aroclor 1242			0.005	mg/l	0.00025	U	-	-
Aroclor 1248			0.005	mg/l	0.00025	U	-	-
Aroclor 1254			0.005	mg/l	0.00025	U	-	-
Aroclor 1260			0.005	mg/l	0.0002	U	-	-
TOTAL PCBs	6.4×10^{-8}	6.4×10^{-8}			0.0017	U	-	-

Notes:

The NPDES RGP criteria are shown for both freshwater and saltwater depending on where the groundwater is discharged.
Blank cell in the standards indicates a standard is not established
- = sample not analyzed for stated compound
mg/l = milligram per liter
TPH = total petroleum hydrocarbons
U = compound was not detected above stated laboratory detection limit
* - indicates Monthly RGP NPDES maximum
** - indicates Daily RGP NPDES maximum
Yellow highlighted concentration indicates exceedance of RGP NPDES criteria.

Table 2
Results of Groundwater Sample Analysis
Congress Street Parcel
South Boston, Massachusetts

Parameter	DEP RGW-2 Standard	Former Locations		New Locations		
		LFRMW-1	LFRMW-2	LFR-1	LFR-2	LFR-2
		11/3/2000	11/3/2000	12/5/2005	12/5/2005	12/5/2005
Volatile Organics (ug/L)						
Benzene	2,000	ND	4.41	1.2	ND (1.0)	ND (1.0)
Toluene	6,000	ND	ND	ND (5.0)	ND (5.0)	ND (5.0)
Ethylbenzene	4,000	ND	5.17	ND (5.0)	ND (5.0)	ND (5.0)
Xylenes	6,000	ND	2.00	1.7	ND (1.0)	ND (1.0)
Naphthalene	6,000	ND	28.9*	31.5	ND (5.0)	4.2
MTBE	50,000	ND	ND	2.6	3.6	3.6
VPH (ug/L)						
C5-C8 Aliphatics	1,000	ND	ND	ND (500)	ND (500)	ND (500)
C9-C12 Aliphatics	1,000	ND	ND	ND (500)	ND (500)	ND (500)
C9-C10 Aromatics	4,000	ND	ND	ND (500)	ND (500)	ND (500)
EPH (ug/L)						
C9-C18 Aliphatics	1,000	ND	ND	ND (150)	ND (150)	ND (150)
C19-C36 Aliphatics	20,000	ND	ND	ND (150)	ND (150)	ND (150)
C11-C22 Aromatics	30,000	ND	ND	ND (100)	ND (100)	ND (100)
PAH (ug/L)						
Acenaphthene	3,000	ND	50.9B	ND (1.0)	2.2	2.1
Fluorene	3,000	ND	7.80	2.1	ND (1.0)	ND (1.0)
2-Methylnaphthalene	3,000	ND	ND	4.0	ND (1.0)	ND (1.0)
Naphthalene	6,000	0.4B	11.9B	16.8	ND (1.0)	ND (1.0)
Phenanthrene	50	ND	7.40	2.6	ND (1.0)	ND (1.0)
Metals (ug/L)						
Arsenic	400	ND	ND	ND (50)	ND (50)	ND (50)
Barium	30,000	NT	NT	64.3	173.0	41.4
Cadmium	10	ND	ND	ND (0.5)	0.8	0.7
Chromium	2,000	ND	ND	9.0	ND (4.0)	ND (4.0)
Lead	30	ND	ND	17.0	ND (3)	ND (3)
Mercury	1	NT	NT	ND (0.04)	ND (0.04)	ND (0.04)
Selenium	80	NT	NT	ND (50)	ND (50)	ND (50)
Silver	7	NT	NT	ND (5)	ND (5)	ND (5)

Notes:

1. See laboratory data sheets for a complete list of compounds, analytical methods and limits of detection
3. DEP Standards from 310 CMR 40.0975.
4. ND equals not detected.
5. NT equals Not Tested
7. * The VPH fraction concentration and VOC method concentration differer for this compound. The VOC method is more accurate for this compound, thus the VOC method concentration for this compound is used in this table.

APPENDIX D:

LABORATORY ANALYTIC DATA - GROUNDWATER

ANALYTICAL REPORT

Lab Number:	L1630613
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	399 CONGRESS ST.
Project Number:	4540
Report Date:	10/03/16

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).

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

Project Name: 399 CONGRESS ST.
Project Number: 4540

Lab Number: L1630613
Report Date: 10/03/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1630613-01	OW2, GW-1	WATER	BOSTON, MA	09/27/16 15:00	09/27/16

Project Name: 399 CONGRESS ST. **Lab Number:** L1630613

Project Number: 4540 **Report Date:** 10/03/16

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: 399 CONGRESS ST.
Project Number: 4540

Lab Number: L1630613
Report Date: 10/03/16

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 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: 399 CONGRESS ST. **Lab Number:** L1630613
Project Number: 4540 **Report Date:** 10/03/16

Case Narrative (continued)

MCP Related Narratives

Sample Receipt

L1630613-01: The sample was received above the appropriate pH for the Metals analysis. The laboratory added additional HNO3 to a pH <2.

Metals

In reference to question I:

All samples were analyzed for a subset of MCP analytes per the Chain of Custody.

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: 10/03/16

METALS

Project Name: 399 CONGRESS ST.
Lab Number: L1630613
Project Number: 4540
Report Date: 10/03/16

SAMPLE RESULTS

Lab ID: L1630613-01
Client ID: OW2, GW-1
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 09/27/16 15:00
Date Received: 09/27/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab											
Iron, Dissolved	15		mg/l	0.05	--	1	09/29/16 09:25	09/30/16 19:30	EPA 3005A	97,6010C	PS
Lead, Dissolved	ND		mg/l	0.010	--	1	09/29/16 09:25	09/30/16 19:30	EPA 3005A	97,6010C	PS
Zinc, Dissolved	0.064		mg/l	0.050	--	1	09/29/16 09:25	09/30/16 19:30	EPA 3005A	97,6010C	PS

Project Name: 399 CONGRESS ST.
Project Number: 4540
Lab Number: L1630613
Report Date: 10/03/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab for sample(s): 01 Batch: WG937031-1										
Iron, Dissolved	ND		mg/l	0.05	--	1	09/29/16 09:25	09/30/16 18:29	97,6010C	PS
Lead, Dissolved	ND		mg/l	0.010	--	1	09/29/16 09:25	09/30/16 18:29	97,6010C	PS
Zinc, Dissolved	ND		mg/l	0.050	--	1	09/29/16 09:25	09/30/16 18:29	97,6010C	PS

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540

Lab Number: L1630613

Report Date: 10/03/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01 Batch: WG937031-2 WG937031-3								
Iron, Dissolved	93		92		80-120	1		20
Lead, Dissolved	106		105		80-120	1		20
Zinc, Dissolved	100		100		80-120	0		20

Project Name: 399 CONGRESS ST.
Project Number: 4540

Lab Number: L1630613
Report Date: 10/03/16

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(*)
L1630613-01A	Amber 1000ml unpreserved	A	7	6.0	Y	Absent	MCP-FE-6010S-10(180),MCP-ZN-6010S-10(180),MCP-PB-6010S-10(180)

*Values in parentheses indicate holding time in days

Project Name:	399 CONGRESS ST.	**Lab Number:**	L1630613
Project Number:	4540	**Report Date:**	10/03/16

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.
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:	399 CONGRESS ST.	**Lab Number:**	L1630613
Project Number:	4540	**Report Date:**	10/03/16

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.

Report Format: Data Usability Report

Project Name:	399 CONGRESS ST.	**Lab Number:**	L1630613
Project Number:	4540	**Report Date:**	10/03/16

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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

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, NO2, NO3.
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, SM4500Cl-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, SM9222D-MF**.

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.

CHAIN OF CUSTODY

PAGE _____ OF _____

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 9/27/16

ALPHA Job #: L1630613

Client Information

Client: McPhail

Address: 2269 Mass Ave

Phone: 617 694 4848

Email: bfm@mcphail geo.com

Additional Project Information:

Project Information

Project Name: 399 Congress St

Project Location: Boston MA

Project #: 4540

Project Manager: W. Burns

ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☒ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods

☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)

☐ Yes ☒ No NPDES RGP

☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☐ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Dissolved Zinc	Dissolved Lead	Dissolved Iron				Sample Comments	TOTAL # BOTTLES
30613-01	OW2, GW-1	9/27/16	1500	GW	BFM									X	X	X					1

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

Container Type														A	A	A					
Preservative														A	A	A					

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
AAK	9/27/16 4:36	PAC	9/27/16 16:36
AAK	9/27/16 17:55		

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1628083
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	399 CONGRESS ST.
Project Number:	4540.9.00
Report Date:	09/13/16

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).

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

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1628083-01	OW-1	WATER	BOSTON, MA	09/07/16 11:00	09/07/16
L1628083-02	OW-2	WATER	BOSTON, MA	09/07/16 11:00	09/07/16

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083
Project Number: 4540.9.00 **Report Date:** 09/13/16

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.

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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.

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

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083
Project Number: 4540.9.00 **Report Date:** 09/13/16

Case Narrative (continued)

Semivolatile Organics

The WG930233-2/-3 LCS/LCSD recoveries, associated with L1628083-01 and -02, are below the acceptance criteria for pyridine (9%/9%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

PCBs

WG930651: A laboratory duplicate could not be performed due to insufficient sample volume available for analysis.

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

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 09/13/16

ORGANICS

VOLATILES

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01
Client ID: OW-1
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 09/13/16 09:00
Analyst: MM

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified

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

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01 Date Collected: 09/07/16 11:00

Client ID: OW-1 Date Received: 09/07/16

Sample Location: BOSTON, MA 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	13		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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01 Date Collected: 09/07/16 11:00

Client ID: OW-1 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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	99		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	102		70-130

Project Name: 399 CONGRESS ST.
Lab Number: L1628083
Project Number: 4540.9.00
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01
Client ID: OW-1
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8260C-SIM(M)
Analytical Date: 09/13/16 09:00
Analyst: MM

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified

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: 399 CONGRESS ST.
Lab Number: L1628083
Project Number: 4540.9.00
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01
Client ID: OW-1
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 09/12/16 15:45
Analyst: NS

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 8011
Extraction Date: 09/12/16 11:15

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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02
Client ID: OW-2
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 09/13/16 09:34
Analyst: MM

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified

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

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02 Date Collected: 09/07/16 11:00

Client ID: OW-2 Date Received: 09/07/16

Sample Location: BOSTON, MA 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	16		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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02 Date Collected: 09/07/16 11:00

Client ID: OW-2 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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	99		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Project Name: 399 CONGRESS ST.
Lab Number: L1628083
Project Number: 4540.9.00
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02
Client ID: OW-2
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8260C-SIM(M)
Analytical Date: 09/13/16 09:34
Analyst: MM

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified

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: 399 CONGRESS ST.
Lab Number: L1628083
Project Number: 4540.9.00
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02
Client ID: OW-2
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 09/12/16 16:02
Analyst: NS

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 8011
Extraction Date: 09/12/16 11:15

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: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 09/12/16 14:55
Analyst: NS

Extraction Method: EPA 8011
Extraction Date: 09/12/16 11:15

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 01-02 Batch: WG931000-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/13/16 08:27
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG931309-5					
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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/13/16 08:27
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG931309-5					
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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/13/16 08:27
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG931309-5					
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	99		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C-SIM(M)
Analytical Date: 09/13/16 08:27
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG931327-5					
1,4-Dioxane	ND		ug/l	3.0	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab	Associated sample(s): 01-02 Batch: WG931000-2								
1,2-Dibromoethane	98		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	95		-		70-130	-		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

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: WG931309-3 WG931309-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	100		99		70-130	1		20
Dibromochloromethane	94		99		63-130	5		20
1,1,2-Trichloroethane	100		100		70-130	0		20
2-Chloroethylvinyl ether	86		93		70-130	8		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		25
Trichlorofluoromethane	110		100		62-150	10		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	98		100		67-130	2		20
trans-1,3-Dichloropropene	99		99		70-130	0		20
cis-1,3-Dichloropropene	94		95		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	81		80		54-136	1		20
1,1,2,2-Tetrachloroethane	95		97		67-130	2		20
Benzene	100		100		70-130	0		25
Toluene	110		110		70-130	0		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

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: WG931309-3 WG931309-4								
Ethylbenzene	100		100		70-130	0		20
Chloromethane	98		97		64-130	1		20
Bromomethane	110		110		39-139	0		20
Vinyl chloride	110		100		55-140	10		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		25
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	100		100		70-130	0		25
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	99		100		70-130	1		20
1,4-Dichlorobenzene	98		99		70-130	1		20
Methyl tert butyl ether	95		97		63-130	2		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	92		93		70-130	1		20
1,4-Dichlorobutane	92		94		70-130	2		20
Iodomethane	92		100		70-130	8		20
1,2,3-Trichloropropane	94		94		64-130	0		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	86		89		36-147	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

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: WG931309-3 WG931309-4								
Acetone	82		80		58-148	2		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	88		88		63-138	0		20
Vinyl acetate	96		94		70-130	2		20
4-Methyl-2-pentanone	87		90		59-130	3		20
2-Hexanone	81		78		57-130	4		20
Ethyl methacrylate	92		95		70-130	3		20
Acrolein	100		100		70-130	0		20
Acrylonitrile	87		84		70-130	4		20
Bromochloromethane	98		100		70-130	2		20
Tetrahydrofuran	88		93		58-130	6		20
2,2-Dichloropropane	110		100		63-133	10		20
1,2-Dibromoethane	92		95		70-130	3		20
1,3-Dichloropropane	98		100		70-130	2		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	97		96		70-130	1		20
n-Butylbenzene	95		94		53-136	1		20
sec-Butylbenzene	98		98		70-130	0		20
tert-Butylbenzene	99		100		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	97		99		70-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

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: WG931309-3 WG931309-4								
1,2-Dibromo-3-chloropropane	96		88		41-144	9		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	98		100		70-130	2		20
p-Isopropyltoluene	98		98		70-130	0		20
Naphthalene	86		92		70-130	7		20
n-Propylbenzene	100		99		69-130	1		20
1,2,3-Trichlorobenzene	92		95		70-130	3		20
1,2,4-Trichlorobenzene	94		97		70-130	3		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,3,5-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
trans-1,4-Dichloro-2-butene	95		**62**	Q	70-130	**42**	Q	20
Halothane	110		100		70-130	10		20
Ethyl ether	96		96		59-134	0		20
Methyl Acetate	99		100		70-130	1		20
Ethyl Acetate	76		88		70-130	15		20
Isopropyl Ether	99		97		70-130	2		20
Cyclohexane	110		100		70-130	10		20
Tert-Butyl Alcohol	82		82		70-130	0		20
Ethyl-Tert-Butyl-Ether	96		95		70-130	1		20
Tertiary-Amyl Methyl Ether	94		92		66-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

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: WG931309-3 WG931309-4								
1,4-Dioxane	86		84		56-162	2		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		100		70-130	10		20
Methyl cyclohexane	100		100		70-130	0		20
p-Diethylbenzene	99		95		70-130	4		20
4-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		93		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	102		98		70-130
Dibromofluoromethane	100		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG931327-3 WG931327-4								
1,4-Dioxane	100		120		70-130	18		25
1,1,2,2-Tetrachloroethane	110		110		70-130	0		25

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG931000-3 QC Sample: L1628083-01 Client ID: OW-1													
1,2-Dibromoethane	ND	0.258	0.261	101		-	-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.258	0.242	94		-	-		70-130	-		20	A

SEMIVOLATILES

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01
Client ID: OW-1
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 09/10/16 22:22
Analyst: PS

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	20	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	20	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
NDPA/DPA	ND		ug/l	2.0	--	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--	1
Bis(2-ethylhexyl)phthalate	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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01 Date Collected: 09/07/16 11:00

Client ID: OW-1 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	48		41-149

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01
Client ID: OW-1
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/09/16 23:17
Analyst: KL

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	9.6		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	1.1		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	1.4		ug/l	0.20	--	1
Phenanthrene	0.40		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	1.6		ug/l	0.20	--	1
2-Methylnaphthalene	0.51		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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01 Date Collected: 09/07/16 11:00

Client ID: OW-1 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	112		23-120
2-Fluorobiphenyl	112		15-120
2,4,6-Tribromophenol	**132**	Q	10-120
4-Terphenyl-d14	80		41-149

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02
Client ID: OW-2
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 09/12/16 10:35
Analyst: AS

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	20	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	20	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
NDPA/DPA	ND		ug/l	2.0	--	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--	1
Bis(2-ethylhexyl)phthalate	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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02 Date Collected: 09/07/16 11:00

Client ID: OW-2 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	76		10-120
4-Terphenyl-d14	57		41-149

Project Name: 399 CONGRESS ST.
Lab Number: L1628083
Project Number: 4540.9.00
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02
Client ID: OW-2
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/09/16 23:47
Analyst: KL

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.52		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	ND		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	0.35		ug/l	0.20	--	1
Phenanthrene	0.89		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: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02 Date Collected: 09/07/16 11:00

Client ID: OW-2 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	112		23-120
2-Fluorobiphenyl	114		15-120
2,4,6-Tribromophenol	**130**	Q	10-120
4-Terphenyl-d14	91		41-149

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/11/16 23:02
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG930233-1					
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	--
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	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Biphenyl	ND		ug/l	2.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/11/16 23:02
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG930233-1					
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
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	--

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/11/16 23:02
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG930233-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	69		41-149

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 09/09/16 11:26
Analyst: KL

Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG930234-1					
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: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 09/09/16 11:26
Analyst: KL

Extraction Method: EPA 3510C
Extraction Date: 09/09/16 03:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG930234-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	87		15-120
2,4,6-Tribromophenol	86		10-120
4-Terphenyl-d14	90		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG930233-2 WG930233-3								
Benzidine	11		14		10-75	24		30
1,2,4-Trichlorobenzene	66		64		39-98	3		30
Bis(2-chloroethyl)ether	90		83		40-140	8		30
1,2-Dichlorobenzene	63		61		40-140	3		30
1,3-Dichlorobenzene	59		59		40-140	0		30
1,4-Dichlorobenzene	60		60		36-97	0		30
3,3'-Dichlorobenzidine	82		77		40-140	6		30
2,4-Dinitrotoluene	**111**	Q	**98**	Q	24-96	12		30
2,6-Dinitrotoluene	112		102		40-140	9		30
Azobenzene	103		94		40-140	9		30
4-Chlorophenyl phenyl ether	97		89		40-140	9		30
4-Bromophenyl phenyl ether	103		94		40-140	9		30
Bis(2-chloroisopropyl)ether	88		82		40-140	7		30
Bis(2-chloroethoxy)methane	96		87		40-140	10		30
Hexachlorocyclopentadiene	60		56		40-140	7		30
Isophorone	98		90		40-140	9		30
Nitrobenzene	93		85		40-140	9		30
NDPA/DPA	101		92		40-140	9		30
n-Nitrosodi-n-propylamine	98		90		29-132	9		30
Bis(2-ethylhexyl)phthalate	102		93		40-140	9		30
Butyl benzyl phthalate	104		94		40-140	10		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG930233-2 WG930233-3								
Di-n-butylphthalate	112		103		40-140	8		30
Di-n-octylphthalate	106		96		40-140	10		30
Diethyl phthalate	104		94		40-140	10		30
Dimethyl phthalate	102		92		40-140	10		30
Biphenyl	94		88		40-140	7		30
Aniline	**27**	Q	**32**	Q	40-140	17		30
4-Chloroaniline	67		63		40-140	6		30
2-Nitroaniline	115		106		52-143	8		30
3-Nitroaniline	93		83		25-145	11		30
4-Nitroaniline	111		100		51-143	10		30
Dibenzofuran	94		87		40-140	8		30
1,2,4,5-Tetrachlorobenzene	86		80		2-134	7		30
Acetophenone	106		98		39-129	8		30
n-Nitrosodimethylamine	57		53		22-74	7		30
2,4,6-Trichlorophenol	108		101		30-130	7		30
p-Chloro-m-cresol	**106**	Q	96		23-97	10		30
2-Chlorophenol	93		86		27-123	8		30
2,4-Dichlorophenol	104		94		30-130	10		30
2,4-Dimethylphenol	99		91		30-130	8		30
2-Nitrophenol	104		97		30-130	7		30
4-Nitrophenol	69		62		10-80	11		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG930233-2 WG930233-3								
2,4-Dinitrophenol	94		84		20-130	11		30
4,6-Dinitro-o-cresol	101		90		20-164	12		30
Phenol	50		48		12-110	4		30
2-Methylphenol	90		82		30-130	9		30
3-Methylphenol/4-Methylphenol	86		79		30-130	8		30
2,4,5-Trichlorophenol	110		100		30-130	10		30
Benzoic Acid	49		28		10-164	**55**	Q	30
Benzyl Alcohol	84		76		26-116	10		30
Carbazole	104		96		55-144	8		30
Pyridine	**9**	Q	**9**	Q	10-66	7		30
Parathion, ethyl	**163**	Q	**156**	Q	40-140	4		30
Atrazine	128		118		40-140	8		30
Benzaldehyde	95		89		40-140	7		30
Caprolactam	36		33		10-130	9		30
2,3,4,6-Tetrachlorophenol	110		100		40-140	10		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG930233-2 WG930233-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		61		21-120
Phenol-d6	52		48		10-120
Nitrobenzene-d5	94		86		23-120
2-Fluorobiphenyl	90		84		15-120
2,4,6-Tribromophenol	108		99		10-120
4-Terphenyl-d14	97		89		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG930234-2 WG930234-3								
Acenaphthene	96		94		37-111	2		40
2-Chloronaphthalene	91		84		40-140	8		40
Fluoranthene	96		104		40-140	8		40
Hexachlorobutadiene	78		67		40-140	15		40
Naphthalene	88		77		40-140	13		40
Benzo(a)anthracene	96		108		40-140	12		40
Benzo(a)pyrene	96		105		40-140	9		40
Benzo(b)fluoranthene	100		111		40-140	10		40
Benzo(k)fluoranthene	98		104		40-140	6		40
Chrysene	95		105		40-140	10		40
Acenaphthylene	108		101		40-140	7		40
Anthracene	99		102		40-140	3		40
Benzo(ghi)perylene	99		109		40-140	10		40
Fluorene	102		105		40-140	3		40
Phenanthrene	98		105		40-140	7		40
Dibenzo(a,h)anthracene	103		108		40-140	5		40
Indeno(1,2,3-cd)pyrene	98		105		40-140	7		40
Pyrene	90		95		26-127	5		40
1-Methylnaphthalene	92		84		40-140	9		40
2-Methylnaphthalene	94		86		40-140	9		40
Pentachlorophenol	99		**106**	Q	9-103	7		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG930234-2 WG930234-3								
Hexachlorobenzene	91		94		40-140	3		40
Hexachloroethane	91		73		40-140	22		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	59		48		21-120
Phenol-d6	43		38		10-120
Nitrobenzene-d5	94		83		23-120
2-Fluorobiphenyl	93		85		15-120
2,4,6-Tribromophenol	99		110		10-120
4-Terphenyl-d14	91		100		41-149

PCBS

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00
Lab Number: L1628083
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01
Client ID: OW-1
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 5,608
Analytical Date: 09/11/16 10:43
Analyst: HT

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 608
Extraction Date: 09/10/16 10:02
Cleanup Method: EPA 3665A
Cleanup Date: 09/10/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/10/16

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	89		30-150	A

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00
Lab Number: L1628083
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02
Client ID: OW-2
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 5,608
Analytical Date: 09/11/16 10:59
Analyst: HT

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified
Extraction Method: EPA 608
Extraction Date: 09/10/16 10:02
Cleanup Method: EPA 3665A
Cleanup Date: 09/10/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/10/16

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	71		30-150	A

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 09/11/16 11:32
Analyst: HT

Extraction Method: EPA 608
Extraction Date: 09/10/16 10:02
Cleanup Method: EPA 3665A
Cleanup Date: 09/10/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/10/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG930651-1						
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	88		30-150	A
Decachlorobiphenyl	101		30-150	A

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab	Associated sample(s): 01-02	QC Batch ID: WG930651-3	QC Sample: L1628083-01	Client ID: OW-1									
Aroclor 1016	ND	1	0.906	91		-	-		40-140	-		50	A
Aroclor 1260	ND	1	0.820	82		-	-		40-140	-		50	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93				30-150	A
Decachlorobiphenyl	87				30-150	A

METALS

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01 Date Collected: 09/07/16 11:00

Client ID: OW-1 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.0040	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Arsenic, Total	0.0009		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Cadmium, Total	ND		mg/l	0.0002	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Chromium, Total	ND		mg/l	0.0010	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Copper, Total	ND		mg/l	0.0010	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Iron, Total	7.99		mg/l	0.050	--	1	09/09/16 10:30	09/09/16 19:26	EPA 3005A	19,200.7	AB
Lead, Total	ND		mg/l	0.00050	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	--	1	09/08/16 13:30	09/08/16 17:59	EPA 245.1	3,245.1	EA
Nickel, Total	ND		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.005	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.0004	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.0100	--	1	09/09/16 10:30	09/09/16 14:06	EPA 3005A	1,6020A	AM

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02 Date Collected: 09/07/16 11:00

Client ID: OW-2 Date Received: 09/07/16

Sample Location: BOSTON, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.0040	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Arsenic, Total	0.0020		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Cadmium, Total	ND		mg/l	0.0002	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Chromium, Total	ND		mg/l	0.0010	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Copper, Total	0.0038		mg/l	0.0010	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Iron, Total	14.0		mg/l	0.050	--	1	09/09/16 10:30	09/09/16 20:17	EPA 3005A	19,200.7	AB
Lead, Total	0.0040		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	--	1	09/08/16 13:30	09/08/16 18:00	EPA 245.1	3,245.1	EA
Nickel, Total	ND		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.005	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.0004	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM
Zinc, Total	0.0698		mg/l	0.0100	--	1	09/09/16 10:30	09/09/16 14:17	EPA 3005A	1,6020A	AM

Project Name: 399 CONGRESS ST. **Lab Number:** L1628083

Project Number: 4540.9.00 **Report Date:** 09/13/16

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: WG929996-1										
Mercury, Total	ND		mg/l	0.0002	--	1	09/08/16 13:30	09/08/16 17:33	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 - Mansfield Lab for sample(s): 01-02 Batch: WG930337-1										
Iron, Total	ND		mg/l	0.050	--	1	09/09/16 10:30	09/09/16 19:05	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: WG930347-1										
Antimony, Total	ND		mg/l	0.0040	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Arsenic, Total	ND		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Cadmium, Total	ND		mg/l	0.0002	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Chromium, Total	ND		mg/l	0.0010	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Copper, Total	ND		mg/l	0.0010	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Lead, Total	ND		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Nickel, Total	ND		mg/l	0.0005	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Selenium, Total	ND		mg/l	0.005	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Silver, Total	ND		mg/l	0.0004	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM
Zinc, Total	ND		mg/l	0.0100	--	1	09/09/16 10:30	09/09/16 13:58	1,6020A	AM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG929996-2								
Mercury, Total	98		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG930337-2								
Iron, Total	94		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG930347-2								
Antimony, Total	84		-		80-120	-		
Arsenic, Total	97		-		80-120	-		
Cadmium, Total	100		-		80-120	-		
Chromium, Total	84		-		80-120	-		
Copper, Total	88		-		80-120	-		
Lead, Total	90		-		80-120	-		
Nickel, Total	87		-		80-120	-		
Selenium, Total	111		-		80-120	-		
Silver, Total	87		-		80-120	-		
Zinc, Total	96		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

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: WG929996-4 QC Sample: L1628013-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.005	100		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG930337-4 QC Sample: L1628083-01 Client ID: OW-1												
Iron, Total	7.99	1	9.03	104		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG930347-4 QC Sample: L1628083-01 Client ID: OW-1												
Antimony, Total	ND	0.5	0.5170	103		-	-		75-125	-		20
Arsenic, Total	0.0009	0.12	0.1213	100		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.0513	100		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.1876	94		-	-		75-125	-		20
Copper, Total	ND	0.25	0.2434	97		-	-		75-125	-		20
Lead, Total	ND	0.51	0.4914	96		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.4925	98		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.146	122		-	-		75-125	-		20
Silver, Total	ND	0.05	0.0451	90		-	-		75-125	-		20
Zinc, Total	ND	0.5	0.5103	102		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG929996-3 QC Sample: L1628013-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG930337-3 QC Sample: L1628083-01 Client ID: OW-1						
Iron, Total	7.99	7.91	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG930347-3 QC Sample: L1628083-01 Client ID: OW-1						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.0009	0.001	mg/l	8		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		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

INORGANICS
&
MISCELLANEOUS

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00
Lab Number: L1628083
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-01
Client ID: OW-1
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	30.		mg/l	5.0	NA	1	-	09/08/16 14:40	121,2540D	SG
Cyanide, Total	ND		mg/l	0.005	--	1	09/08/16 09:35	09/08/16 14:16	121,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	09/07/16 22:03	121,4500CL-D	AS
pH (H)	7.0		SU	-	NA	1	-	09/07/16 23:51	121,4500H+-B	AS
TPH, SGT-HEM	ND		mg/l	4.00	--	1	09/08/16 21:00	09/09/16 17:24	74,1664A	ML
Phenolics, Total	ND		mg/l	0.030	--	1	09/08/16 09:30	09/08/16 15:01	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	09/08/16 00:19	09/08/16 00:24	121,3500CR-B	MC
Anions by Ion Chromatography - Westborough Lab										
Chloride	909.		mg/l	12.5	--	25	-	09/08/16 06:55	44,300.0	AU

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00
Lab Number: L1628083
Report Date: 09/13/16

SAMPLE RESULTS

Lab ID: L1628083-02
Client ID: OW-2
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 09/07/16 11:00
Date Received: 09/07/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	620		mg/l	50	NA	10	-	09/08/16 14:40	121,2540D	SG
Cyanide, Total	ND		mg/l	0.005	--	1	09/08/16 09:35	09/08/16 14:17	121,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	09/07/16 22:03	121,4500CL-D	AS
pH (H)	6.9		SU	-	NA	1	-	09/07/16 23:51	121,4500H+-B	AS
TPH, SGT-HEM	ND		mg/l	4.00	--	1	09/08/16 21:00	09/09/16 17:24	74,1664A	ML
Phenolics, Total	ND		mg/l	0.030	--	1	09/08/16 12:30	09/08/16 15:02	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	09/08/16 00:19	09/08/16 00:26	121,3500CR-B	MC
Anions by Ion Chromatography - Westborough Lab										
Chloride	924.		mg/l	12.5	--	25	-	09/08/16 07:19	44,300.0	AU

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00
Lab Number: L1628083
Report Date: 09/13/16

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): 01-02 Batch: WG929729-3										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	09/07/16 22:03	121,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG929741-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	09/08/16 00:19	09/08/16 00:24	121,3500CR-B	MC
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG929885-1										
Cyanide, Total	ND		mg/l	0.005	--	1	09/08/16 09:35	09/08/16 13:17	121,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG929892-1										
Phenolics, Total	ND		mg/l	0.030	--	1	09/08/16 09:30	09/08/16 14:57	4,420.1	MP
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG929911-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	09/08/16 14:40	121,2540D	SG
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-02 Batch: WG930166-1										
Chloride	ND		mg/l	0.500	--	1	-	09/07/16 23:07	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG930171-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	09/08/16 21:00	09/09/16 17:24	74,1664A	ML

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST.

Project Number: 4540.9.00

Lab Number: L1628083

Report Date: 09/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG929729-1								
Chlorine, Total Residual	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG929741-2								
Chromium, Hexavalent	100		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG929755-1								
pH (H)	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG929885-2								
Cyanide, Total	93		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG929892-2								
Phenolics, Total	100		-		70-130	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 Batch: WG930166-2								
CHLORIDE	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG930171-2								
TPH, SGT-HEM	85		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929741-4 QC Sample: L1628083-01 Client ID: OW-1												
Chromium, Hexavalent	ND	0.1	0.100	100		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929885-4 QC Sample: L1628083-02 Client ID: OW-2												
Cyanide, Total	ND	0.2	0.206	103		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929892-4 QC Sample: L1627924-01 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.38	96		-	-		70-130	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG930166-3 WG930166-4 QC Sample: L1627587-09 Client ID: MS Sample												
Chloride	99.3	100	266	**167**	Q	266	**167**	Q	40-151	0		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG930171-4 QC Sample: L1628083-02 Client ID: OW-2												
TPH	ND	20	15.9	80		-	-		64-132	-		34

Lab Duplicate Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929729-2 QC Sample: L1628083-02 Client ID: OW-2						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929741-3 QC Sample: L1628083-01 Client ID: OW-1						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929755-2 QC Sample: L1627978-01 Client ID: DUP Sample						
pH	8.1	8.1	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929885-3 QC Sample: L1628083-01 Client ID: OW-1						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929892-3 QC Sample: L1627924-01 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG929911-2 QC Sample: L1628083-02 Client ID: OW-2						
Solids, Total Suspended	620	620	mg/l	0		29
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG930171-3 QC Sample: L1628083-01 Client ID: OW-1						
TPH, SGT-HEM	ND	ND	mg/l	NC		34

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1628083-01A	Vial HCl preserved	C	N/A	2.6	Y	Absent	8260-SIM(14),8260(14)
L1628083-01B	Vial HCl preserved	C	N/A	2.6	Y	Absent	8260-SIM(14),8260(14)
L1628083-01C	Vial HCl preserved	C	N/A	2.6	Y	Absent	8260-SIM(14),8260(14)
L1628083-01D	Vial Na2S2O3 preserved	C	N/A	2.6	Y	Absent	504(14)
L1628083-01E	Vial Na2S2O3 preserved	C	N/A	2.6	Y	Absent	504(14)
L1628083-01F	Plastic 250ml HNO3 preserved	C	<2	2.6	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)
L1628083-01G	Plastic 250ml NaOH preserved	C	>12	2.6	Y	Absent	TCN-4500(14)
L1628083-01H	Plastic 950ml unpreserved	C	8	2.6	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1628083-01H1	Plastic 250ml unpreserved	C	8	2.6	Y	Absent	-
L1628083-01I	Plastic 60ml unpreserved	C	8	2.6	Y	Absent	PH-4500(.01)
L1628083-01J	Plastic 950ml unpreserved	C	8	2.6	Y	Absent	TSS-2540(7)
L1628083-01K	Amber 1000ml H2SO4 preserved	A	<2	5.6	Y	Absent	TPHENOL-420(28)
L1628083-01L	Amber 1000ml HCl preserved	A	N/A	5.6	Y	Absent	TPH-1664(28)
L1628083-01M	Amber 1000ml HCl preserved	A	N/A	5.6	Y	Absent	TPH-1664(28)
L1628083-01N	Amber 1000ml Na2S2O3	A	8	5.6	Y	Absent	PCB-608(7)
L1628083-01O	Amber 1000ml Na2S2O3	A	8	5.6	Y	Absent	PCB-608(7)
L1628083-01P	Amber 1000ml unpreserved	A	8	5.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1628083-01Q	Amber 1000ml unpreserved	A	8	5.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1628083-02A	Vial HCl preserved	C	N/A	2.6	Y	Absent	8260-SIM(14),8260(14)
L1628083-02B	Vial HCl preserved	C	N/A	2.6	Y	Absent	8260-SIM(14),8260(14)
L1628083-02C	Vial HCl preserved	C	N/A	2.6	Y	Absent	8260-SIM(14),8260(14)
L1628083-02D	Vial Na2S2O3 preserved	C	N/A	2.6	Y	Absent	504(14)
L1628083-02E	Vial Na2S2O3 preserved	C	N/A	2.6	Y	Absent	504(14)

*Values in parentheses indicate holding time in days

Project Name: 399 CONGRESS ST.
Project Number: 4540.9.00

Lab Number: L1628083
Report Date: 09/13/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1628083-02F	Plastic 250ml HNO3 preserved	C	<2	2.6	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)
L1628083-02G	Plastic 250ml NaOH preserved	C	>12	2.6	Y	Absent	TCN-4500(14)
L1628083-02H	Plastic 950ml unpreserved	C	8	2.6	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1628083-02H1	Plastic 250ml unpreserved	C	8	2.6	Y	Absent	-
L1628083-02I	Plastic 60ml unpreserved	C	8	2.6	Y	Absent	PH-4500(.01)
L1628083-02J	Plastic 950ml unpreserved	C	8	2.6	Y	Absent	TSS-2540(7)
L1628083-02K	Amber 1000ml H2SO4 preserved	A	<2	5.6	Y	Absent	TPHENOL-420(28)
L1628083-02L	Amber 1000ml HCl preserved	A	N/A	5.6	Y	Absent	TPH-1664(28)
L1628083-02M	Amber 1000ml HCl preserved	A	N/A	5.6	Y	Absent	TPH-1664(28)
L1628083-02N	Amber 1000ml Na2S2O3	A	8	5.6	Y	Absent	PCB-608(7)
L1628083-02O	Amber 1000ml Na2S2O3	A	8	5.6	Y	Absent	PCB-608(7)
L1628083-02P	Amber 1000ml unpreserved	A	8	5.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1628083-02Q	Amber 1000ml unpreserved	A	8	5.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	399 CONGRESS ST.	**Lab Number:**	L1628083
Project Number:	4540.9.00	**Report Date:**	09/13/16

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.
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:	399 CONGRESS ST.	**Lab Number:**	L1628083
Project Number:	4540.9.00	**Report Date:**	09/13/16

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.

Report Format: Data Usability Report

Project Name:	399 CONGRESS ST.	**Lab Number:**	L1628083
Project Number:	4540.9.00	**Report Date:**	09/13/16

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.

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.

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, NO2, NO3.
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, SM4500Cl-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, SM9222D-MF**.

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.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 9/7/16

ALPHA Job #: L1628083

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: McPhail Associates
Address: 2269 Mass Ave, Cambridge, MA
Phone: 1-617-868-1420
Email: WJB@McPhailgeo.com

Additional Project Information:

Project Information

Project Name: 399 Congress St
Project Location: Boston, MA
Project #: 4540
Project Manager: Bill Burns
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 9-14-16

Report Information - Data Deliverables

☒ ADEx ☐ EMAIL

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	RGP Parameters	PH	TOTAL # BOTTLES
28083-01	OW-1	9-7-16	11:00	GW	BAC	X	X	17
-02	OW-2	9-7-16	11:00	GW	BAC	X	X	17
								/34

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

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

Sample Comments

Container Type	A	A	A	A	P	P	P	V	V	P
Preservative	A	B	D	H	A	C	E	B	H	A

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	9-7-16 1130	ANL	9-7-16 16:45
ANL	9-7-16 18:00		9/7/16 18:00

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

APPENDIX E:

LABORATORY ANALYTICAL DATA – SURFACE WATER

ANALYTICAL REPORT

Lab Number:	L1715446
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	399 CONGRESS ST
Project Number:	4540.2.D7
Report Date:	05/16/17

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

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

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1715446-01	BOSTON INNER HARBOR	WATER	399 CONGRESS	05/11/17 13:30	05/11/17

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

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:	399 CONGRESS ST	**Lab Number:**	L1715446
Project Number:	4540.2.D7	**Report Date:**	05/16/17

Case Narrative (continued)

Metals

L1715446-01, WG1002864-4: The internal standard (IS) response(s) for Arsenic, Copper, Lead, and Zinc were outside the acceptance criteria due to sample matrix interference; however, the criteria were achieved upon re-analysis on dilution. The results of the re-analysis are reported.

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

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 05/16/17

METALS

Project Name: 399 CONGRESS ST
Lab Number: L1715446
Project Number: 4540.2.D7
Report Date: 05/16/17

SAMPLE RESULTS

Lab ID: L1715446-01
Client ID: BOSTON INNER HARBOR
Sample Location: 399 CONGRESS
Matrix: Water
Date Collected: 05/11/17 13:30
Date Received: 05/11/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND		mg/l	0.01000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV
Copper, Total	ND		mg/l	0.01000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV
Iron, Total	0.136		mg/l	0.050	--	1	05/12/17 11:15	05/12/17 17:57	EPA 3005A	19,200.7	AB
Lead, Total	ND		mg/l	0.01000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV
Zinc, Total	ND		mg/l	0.1000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7
Lab Number: L1715446
Report Date: 05/16/17

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: WG1002863-1										
Iron, Total	ND		mg/l	0.050	--	1	05/12/17 11:15	05/12/17 17:33	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 Batch: WG1002864-1										
Arsenic, Total	ND		mg/l	0.00100	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV
Copper, Total	ND		mg/l	0.00100	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV
Lead, Total	ND		mg/l	0.00100	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV
Zinc, Total	ND		mg/l	0.01000	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST

Project Number: 4540.2.D7

Lab Number: L1715446

Report Date: 05/16/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1002863-2								
Iron, Total	105		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1002864-2								
Arsenic, Total	95		-		85-115	-		
Copper, Total	101		-		85-115	-		
Lead, Total	107		-		85-115	-		
Zinc, Total	99		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

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 QC Batch ID: WG1002863-3 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR												
Iron, Total	0.136	1	1.08	94		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002863-7 QC Sample: L1715328-01 Client ID: MS Sample												
Iron, Total	17.0	1	17.0	**0**	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002864-3 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR												
Arsenic, Total	ND	0.12	0.1326	110		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2733	109		-	-		70-130	-		20
Lead, Total	ND	0.51	0.5631	110		-	-		70-130	-		20
Zinc, Total	ND	0.5	0.5660	113		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002863-4 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR						
Iron, Total	0.136	0.124	mg/l	9		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002863-8 QC Sample: L1715328-01 Client ID: DUP Sample						
Iron, Total	17.0	17.4	mg/l	2		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002864-4 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR						
Arsenic, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

SAMPLE RESULTS

Lab ID: L1715446-01
Client ID: BOSTON INNER HARBOR
Sample Location: 399 CONGRESS
Matrix: Water

Date Collected: 05/11/17 13:30
Date Received: 05/11/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
SALINITY	20		SU	2.0	--	1	-	05/15/17 16:30	121,2520B	AS
Nitrogen, Ammonia	0.095		mg/l	0.075	--	1	05/12/17 14:38	05/12/17 21:45	121,4500NH3-BH	AT

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7
Lab Number: L1715446
Report Date: 05/16/17

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: WG1002792-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	05/12/17 14:38	05/12/17 21:23	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST

Project Number: 4540.2.D7

Lab Number: L1715446

Report Date: 05/16/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1002792-2								
Nitrogen, Ammonia	98		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1003620-1								
SALINITY	96		-			-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1002792-4 QC Sample: L1715071-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.076	4	3.92	96		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1002792-3 QC Sample: L1715071-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.076	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1003620-2 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR						
SALINITY	20	22	SU	10		

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

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(*)
L1715446-01A	Plastic 250ml HNO3 preserved	A	<2	5.3	Y	Absent	ZN-2008T(180),CU-2008T(180),FE-UI(180),AS-2008T(180),PB-2008T(180)
L1715446-01B	Plastic 250ml H2SO4 preserved	A	<2	5.3	Y	Absent	NH3-4500(28)
L1715446-01C	Amber 500ml unpreserved	A	7	5.3	Y	Absent	SALINITY(28)
L1715446-01D	Vial MeOH preserved	A	N/A	5.3	Y	Absent	ARCHIVE(0)
L1715446-01E	Vial water preserved	A	N/A	5.3	Y	Absent	ARCHIVE(0)
L1715446-01F	Vial water preserved	A	N/A	5.3	Y	Absent	ARCHIVE(0)

*Values in parentheses indicate holding time in days

Project Name:	399 CONGRESS ST	**Lab Number:**	L1715446
Project Number:	4540.2.D7	**Report Date:**	05/16/17

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:	399 CONGRESS ST	**Lab Number:**	L1715446
Project Number:	4540.2.D7	**Report Date:**	05/16/17

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.

Report Format: Data Usability Report

Project Name:	399 CONGRESS ST	**Lab Number:**	L1715446
Project Number:	4540.2.D7	**Report Date:**	05/16/17

REFERENCES

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.

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, NO2, NO3.
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, SM4500Cl-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.

CHAIN OF CUSTODY

PAGE_____ OF _____

Date Rec'd in Lab: 5/11/17

ALPHA Job #: L1715946

ALPHA ANALYTICAL
World Class Chemistry

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

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

Client Information

Client: McPhail Associates, LLC

Address: 2269 Massachusetts Avenue,
Cambridge, MA 02140

Phone: 617-868-1420

Email:

Project Information

Project Name: 399 Congress St

Project Location: 399 Congress

Project #: 4540.07

Project Manager: WJB

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 3 day

Report Information - Data Deliverables

☒ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods

☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)

☒ Yes ☐ No NPDES RGP

☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

** Metals List: As, CU, FE,PB and Zn Only

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Total Metals - RCP 13	Ammonia **	Salinity	PAH	TPH	SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
L1715946-01	Boston Inner Harbor	5/11/17	1:30	GW	JRS									X	X	X	X	X			5

Container Type															
Container Type												P	P	A	
Preservative												C	D	A	

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	5/11/17 2:45		
	5/11/17 8:1		5/11/17

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE_____ OF _____

Date Rec'd in Lab: 5/11/17

ALPHA Job #: L1715946

ALPHA ANALYTICAL
World Class Chemistry
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220
320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: 399 Congress St
Project Location: 399 Congress
Project #: 4540.07
Project Manager: WJB
ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: McPhail Associates, LLC
Address: 2269 Massachusetts Avenue,
Cambridge, MA 02140
Phone: 617-868-1420
Email:

Regulatory Requirements & Project Information Requirements

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

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 3 day

Additional Project Information:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Metals - RCP 13	Ammonia	Salinity	TOTAL # BOTTLES
1715946-01	Boston Inner Harbor	5/11/17	1:30	SW	JRS	X	X	X	5

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

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

Sample Comments

Container Type												P	P	A			
Preservative												C	D	A			

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	5/11/17 2:45		
	5/11/17 8:1		5/11/17

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

APPENDIX F:

BEST MANAGEMENT PRACTICE PLAN

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering that will occur during redevelopment of 399 Congress Avenue in Boston, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

Water Treatment and Management

During construction of the proposed building foundation, dewatering effluent is anticipated to be pumped from localized sumps and trenches within the excavation directly into a settling tank. The effluent will then flow through the necessary treatment systems and discharge through hoses or piping connected into the storm water drains located beneath Congress Street, E Service Road, and Seaport Blvd. Based upon a review of the City of Boston stormwater drainage plan, the above referenced stormwater drain system ultimately discharges into the Boston Inner Harbor. Dewatering effluent treatment will consist of a settling tank, bag filters to remove suspended soil particulates. If further treatment is necessary, effluent discharge will be passed through ion resin media vessels prior to off-site discharge to lower concentrations of metals below applicable TBELs. pH adjustment will be conducted, if necessary, through the addition of hydrochloric acid, caustic soda and carbon dioxide.

Discharge Monitoring and Compliance

Sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. During the first week of discharge, the operator must sample the untreated influent and treated effluent two times: one (1) sample of untreated influent and one (1) sample of treated effluent be collected on the first day of discharge, and one (1) sample of untreated influent and one (1) sample of treated effluent must be collected on one additional non-consecutive day within the first week of discharge. Samples must be analyzed in accordance with 40 CFR §136 unless otherwise specified by the RGP, with a maximum 5-day turnaround time and results must be reviewed no more than 48 hours from receipt of the results of each sampling event. After the first week, samples may be analyzed with up to a ten (10)-day turnaround time and results must be reviewed no more than 72 hours from receipt of the results. If the treatment system is operating as designed and achieving the effluent limitations outlined in the RGP, on-going sampling shall be conducted weekly for three (3) additional weeks beginning no earlier than 24 hours following initial sampling, and monthly as described below. Any adjustments/reductions in monitoring frequency must be approved by EPA in writing.

In accordance with Part 4.1 of the RGP, the operator will perform routine monthly monitoring for both influent and effluent beginning no more than 30 days following the completion of the sampling requirements for new discharges or discharges that have been interrupted. The routine monthly monitoring is to be conducted through the end of the scheduled discharge. The routine monthly monitoring must continue for five (5) consecutive months prior to submission of any request for modification of monitoring frequency.

Dewatering activity for the Site is classified as Category III-G: Sites with Known Contamination. Monitoring shall include analysis of influent and effluent for contaminates specified by the EPA.

Monitoring will include checking the condition of the treatment system, assessing the need for treatment system adjustments based on monitoring data, observing, and recording daily flow rates and discharge quantities, and verifying the flow path of the discharged effluent.

The total monthly flow will be monitored by checking and documenting the flow through the flow meter to be installed on the system. Flow will be maintained below the "system design flow" by regularly monitoring flow and adjusting the amount of construction dewatering as needed. Monthly monitoring reports will be compiled and maintained at the site.

System Maintenance

Schedule regular maintenance and periodic cleaning of the treatment system will be conducted to verify proper operation and shall be conducted in accordance with Section 1.11 of the project earthwork specifications. Regular maintenance will include checking the condition of the treatment system equipment such as the settling tanks, bag filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential issues and unscheduled maintenance requirements.

Employees who have direct or indirect responsibility for ensuring compliance with the RGP will be trained by the Contractor.

Miscellaneous Items

It is anticipated that the erosion control measures and the nature of the site will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control. Site security for the treatment system will be addressed within the overall site security plan.

No adverse effects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is the Boston Inner Harbor which is located approximately 700 feet to the north of the subject site. Dewatering effluent will be pumped into a settling tank. Water within the settling tank will pumped through bag filters and, if necessary, ion exchange chambers prior to discharge into the storm drains.

Management of Treatment System Materials

Dewatering effluent will be pumped directly into the treatment system from the excavation with use of hoses and localized sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution away from any dewatering activities, to the extent practicable.

Sediment from the tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. Bag will be replaced/disposed of as necessary.