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31 March 2022
File No. 0201602-000

U.S. Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square, Suite 100 (OEP06-01)
Boston, Massachusetts 02109-3912

Attention: Shauna Little, EPA/OEP RGP Coordinator

Subject: NPDES RGP NOI Application
Temporary Construction Dewatering
155 North Beacon Street Development
Brighton, Massachusetts

Ladies and Gentlemen:

Haley & Aldrich, Inc. (Haley & Aldrich) has prepared this submission to facilitate off-site discharge of temporary construction dewatering effluent planned in support of the proposed 155 North Beacon Street development located in Brighton, Massachusetts. Refer to Figure 1 for a Project Locus. On behalf of the project owner, IQHQ-155 Beacon, LLC, and the Operator/General Contractor, Consigli Construction Company, Inc., and in accordance with the 2017 National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) in Massachusetts, MAG910000, Haley & Aldrich submits this Notice of Intent (NOI) and the applicable documentation as required by the U.S. Environmental Protection Agency (EPA) for discharge of temporary construction site dewatering effluent under the NPDES RGP.

We anticipate temporary construction dewatering will be conducted, as necessary, to facilitate below-grade construction in-the-dry. As defined in Table 1 of the NPDES RGP, the Activity Category is III.G (Contaminated Site Dewatering, Sites with Known Contamination). A copy of the completed NOI form is enclosed as Appendix A.

EXISTING SITE CONDITIONS

The subject site is located at 155 North Beacon Street in Brighton, Massachusetts. The site is bordered by a parking garage to the north, Life Street to the east, North Beacon Street to the south, and the WGBH radio station building followed by Market Street to the west; refer to Figure 2. The site is currently occupied by a two-story office and warehouse building with no below-grade space, as well as two (2) at-grade parking lots and an automotive garage. The existing building is assumed to be supported on spread footings bearing in the naturally deposited glacial soils underlying the site.

Site grades range from approximately El. 42 to El. 46¹, with an average of about El. 45, and gently slope upwards across the site from east to west. Numerous subsurface utilities exist beneath Life Street and North Beacon Street, including storm drain, sanitary sewer, water, electric and telecommunications and are shown on Figure 2.

PROPOSED CONSTRUCTION

Our current understanding of the proposed development is based the most recent Design Development drawing set for the project, dated 25 March 2022, as well as on-going project team coordination meetings. The construction is planned to include the redevelopment of the approximately 3.12-acre site located at 155 North Beacon Street. The existing structures and parking lots at the site will be demolished and three (3) 6- to 8-story buildings are planned to be constructed. A contiguous parking garage is planned to be constructed below the three (3) buildings and have two (2) levels of below-grade parking. The lowest level slab is planned at about 29 ft below adjacent site grades, corresponding to approximately El. 17.

Excavation to construct the proposed below-grade space and building foundations is anticipated to be required to a depth of about 31 ft below ground surface (bgs), corresponding to about El. 15. Construction within the limits of the existing building will require removal of buried structures and foundations of the building that currently occupy the site.

A steel-reinforced, load-bearing concrete diaphragm wall (slurry wall) is planned to provide groundwater cut-off and temporary excavation support as well as serve as the permanent perimeter foundation wall. Column loads will be supported on load bearing elements (LBEs) bearing in the glacial soils underlying the site.

SITE HISTORY

The subject site was developed as early as 1884 with a building labeled “Albany House”, a shed and a dwelling while the rest of the property remained undeveloped. A private roadway leading to a stock yard was present bisecting the site to the west. Property to the north of the site was utilized as cattle sheds. By 1898, only the building labeled “Albany House” remained and the cattle sheds were no longer present to the north of the property. In 1925, the subject site began operating as the “Emerson and Norris Co. Cast Stone” and contained a stone shed, a storage room and office. By 1950, the cast stone facility was no longer in operation and a building encompassing a majority of the site was constructed with a section of the building along North Beacon Street labeled “factory” and a machine shop located in the northwest corner. This building was used as a bakers and soda fountain supplier. In 1959, an addition to the main building was constructed in the northwest portion of the site and was utilized as a private garage and then as late as 2010, was used as an automotive repair garage until the present. Previous reports indicate the site was utilized as a wholesale liquor warehouse beginning in the early 1980s. The building remained relatively unchanged through the present and is currently occupied by various commercial tenants and an automotive repair garage.

¹Elevations reported herein are in feet and reference the Boston City Base (BCB) Datum.

ENVIRONMENTAL CONDITIONS AND REGULATORY BACKGROUND

Results of recent soil samples collected for the purposes of soil precharacterization prior to off-site removal of excess soil and groundwater samples collected to characterize site groundwater conditions indicate that soil and groundwater contain compounds at concentrations above the applicable RCS-1 Reportable Concentrations for soil and RCGW-2 Reportable Concentrations for groundwater, respectively, under the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. A summary of the soil and groundwater quality data is provided below:

- Concentrations of semi-volatile organic compounds (SVOCs), primarily polycyclic aromatic hydrocarbons (PAHs), including 2-methylnaphthalene, acenaphthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, biphenyl, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene and phenanthrene were detected in several soil samples above the Massachusetts Contingency Plan (MCP) RCS-1 Reportable Concentrations for soil.
- Lead was detected in one soil sample (HA22-C10_0.5-5) at concentrations above the MCP RCS-1 Reportable Concentrations for soil.
- Zinc was detected in one soil sample (HA21-B4_0-5) at concentrations above the MCP RCS-1 Reportable Concentrations for soil.
- Concentrations of volatile organic compounds (VOCs) including Trichloroethene (TCE), cis-1,2-Dichloroethene (cis-1,2-DCE) and Vinyl chloride were detected in one groundwater sample, HA21-B6(OW)_20220202, above the MCP RCGW-2 Reportable Concentrations for groundwater.

Based on soil analytical results, the Site is a Massachusetts Department of Environmental Protection (MassDEP) Disposal Site. A Release Notification Form (RNF) will be prepared and submitted to MassDEP by April 2022, and a Release Tracking Number (RTN) will be assigned to the site.

TEMPORARY CONSTRUCTION DEWATERING NOTICE OF INTENT (NOI)

A total of four (4) groundwater samples were collected from site observation wells during the period from 1 to 3 February 2022 and submitted to Alpha Analytical (Alpha) of Westborough, Massachusetts to support the subject NPDES RGP NOI application. The locations of the observation wells are shown on Figure 2. The groundwater samples were submitted for chemical analysis of one or more of the following parameters: VOCs, SVOCs, total petroleum hydrocarbons (TPH), Total NPDES RGP Metals, hexavalent and trivalent chromium, polychlorinated biphenyls (PCBs), ammonia, pH, total hardness, Total Suspended Solids (TSS), Total Phenols, Total Chloride, Total Residual Chlorine (TRC) and Cyanide.

Measurements of temperature were obtained in the field on the sampling dates indicated above. Refer to Table I for a summary of the groundwater analytical data. The results indicated concentrations of tetrachloroethene (PCE), TCE, cis-1,2-DCE and Vinyl chloride were present in groundwater above NPDES RGP Effluent Limitations.

When excavations to construct proposed foundations and other site improvements extend beneath site groundwater levels, dewatering will be necessary to control groundwater, seepage, precipitation, surface water runoff, and construction-generated water to enable below-grade construction activities in-the-dry. Construction dewatering effluent that will be discharged off-site will be managed under the NPDES RGP. We estimate effluent discharge rates of a maximum of 100 gallons per minute (gpm). The

estimated duration of temporary construction dewatering is anticipated to be approximately two years, starting in October 2022 and continuing through approximately October 2024. Alternatively, and when feasible, the project may use on-site recharge to manage dewatering effluent.

Temporary construction dewatering will be conducted from sumps located within excavations. Prior to discharge, collected water will be routed through a baffled sedimentation tank and bag filters to remove suspended solids and undissolved constituents, including metals, to within the limits established by the permit. Total flow will be measured with a flow meter/totalizer. Additional treatment will include granular activated carbon (GAC) to remove chlorinated solvents to within the NPDES RGP Effluent Limitations. If necessary to meet the Effluent Limitations, supplemental pre-treatment may include oil/water separators, pH control to adjust the pH to within the limits established by the permit, and/or other components as required; refer to Figure 4 for a schematic of the proposed treatment system as understood at this time.

Discharge of dewatering effluent will be to the storm drain operated by the Boston Water and Sewer Commission (BWSC) beneath the streets surrounding the property, after which the effluent will discharge at outfall SDO 037 to the Charles River. The proposed discharge route and outfall location are shown on Figure 3. Appendix B includes a copy of the BWSC Dewatering Discharge Permit Application.

RECEIVING WATER QUALITY INFORMATION

On 3 February 2022, Haley & Aldrich also collected a receiving water sample from the Charles River at outfall SDO 037 using a disposable polyethylene bailer. The surface water sample was submitted to Alpha for chemical analysis of pH, ammonia, total hardness and Total NPDES RGP Metals. Measurements of temperature were obtained in the field on the sampling date indicated. The results of the receiving water quality data are included in Table I.

Results were used to calculate the site Water Quality Based Effluent Limitations (WQBELs). It is our understanding that since the receiving water is a freshwater body, salinity does not need to be analyzed on either the effluent water or receiving water.

EFFLUENT CRITERIA AND DILUTION FACTOR DETERMINATION

The EPA-suggested WQBEL Calculation spreadsheet was used to calculate the Effluent Limitations for the site. Groundwater and receiving water data were input, and the resulting criteria were tabulated in the attached Table I. As requested by EPA, the Microsoft Excel spreadsheet for the WQBEL calculations will be submitted to the EPA via email for their review upon submission of this NOI. Copies of the "EnterData" and "FreshwaterResults" tabs from the Microsoft Excel file are included in Appendix C.

The Seven Day Ten Year (7Q10) low flow of the Charles River at the outfall location was determined to be 24.3 cubic feet per second (cfs), corresponding to 15.7 million gallons per day (MGD), using the U.S. Geological Survey (USGS) StreamStats program. We are in the process of confirming the 7Q10 low flow and corresponding dilution factor for the project of 110.0 with MassDEP. The StreamStats Report and dilution factor calculations are included in Appendix C.

DETERMINATION OF ENDANGERED SPECIES ACT ELIGIBILITY

In accordance with the Endangered Species Act (ESA) guidelines outlined in Appendix I of the 2017 NPDES RGP, a preliminary determination for the action area associated with this project was established using the U.S. Fish and Wildlife Service (FWS) Information, Planning, and Conservation (IPaC) online system; a copy of the determination is attached in Appendix D. Based on the results of the determination, the project and action area are considered to meet FWS Criterion A as no listed species or critical habitat have been established to be present within the project action area. One candidate species, the Monarch Butterfly, was listed within the project area but no critical habitats have been established. Additionally, a MassDEP Phase 1 Site Assessment Map is included in Appendix D which confirms that no critical habitats are present at the subject site.

DOCUMENTATION OF NATIONAL HISTORIC PRESERVATION ACT ELIGIBILITY

Based on a review of the resources provided by the U.S. National Register of Historic Places and a review of the Massachusetts Cultural Resource Information System (MACRIS), no historic properties have been established to be present at the project site, and discharges and discharge-related activities are not considered to have the potential to affect historic properties. The discharge is considered to meet Criterion A. Documentation is included in Appendix E.

Note that the Charles River Reservation Parkways (Property ID 05001530) is located approximately 0.3 miles to the north of the project site and is part of the Boston Historic District, the limits of which are shown on the National Register of Historic Places map included in Appendix E.

OWNER AND OPERATOR INFORMATION

Owner:

IQHQ-155 Beacon, LLC
One Boston Place
201 Washington Street, Suite 3920
Boston, Massachusetts 02108
Attn: William Ashton
Title: Director of Development

Operator:

Consigli Construction Company, Inc.
313 Congress Street
Boston, Massachusetts 02210
Attn: Thomas Ciampa
Title: Superintendent

An earthwork subcontractor (Site Contractor) will be hired by the Operator/General Contractor to conduct the site work, including dewatering activities. Haley & Aldrich will be on-site to monitor the Contractors' site work on behalf of the Owner and will conduct sampling and testing of the dewatering system influent and effluent in accordance with the NPDES RGP compliance requirements.

APPENDICES

The completed "Suggested Format for the Remediation General Permit Notice of Intent (NOI)" form is enclosed in Appendix A. Appendix B provides a copy of the BWSC Dewatering Discharge Permit Application. Appendix C includes tabs from the WQBEL calculation spreadsheet and dilution factor calculations and documentation. Appendices D and E include the Endangered Species Act documentation and National Register of Historic Places and Massachusetts Historical Commission

documentation, respectively. The groundwater and receiving water laboratory data reports are provided in Appendix F.

The Site Contractor has not yet submitted their construction dewatering submittal, which will include details of the proposed dewatering system along with Safety Data Sheets (SDSs) and fact sheets for possible chemical additives (if needed to adjust pH or reduce suspended sediments). If required, this information will be submitted to the EPA using a Notice of Change (NOC). A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, will be available at the site.

CLOSING

Thank you for considering this NPDES RGP NOI. Please feel free to contact the undersigned should you require additional information or have questions.

Sincerely yours,
HALEY & ALDRICH, INC.



Kyle Block, LSP
Senior Project Manager



Jennifer L. Sweet, P.E. (MA), LSP
Senior Associate | Program Manager

Attachments:

Table I – Summary of Water Quality Data
Figure 1 – Project Locus
Figure 2 – Site and Subsurface Exploration Location Plan
Figure 3– BWSC Proposed Discharge Route and Location
Figure 4 – Proposed Treatment System Schematic
Appendix A – Remediation General Permit Notice of Intent
Appendix B – BWSC Dewatering Discharge Permit Application
Appendix C – Effluent Limitations and Dilution Factor Calculations
Appendix D – Endangered Species Act Documentation
Appendix E – National Register of Historic Places and Massachusetts
Historical Commission Documentation
Appendix F – Laboratory Data Reports

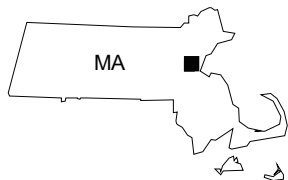
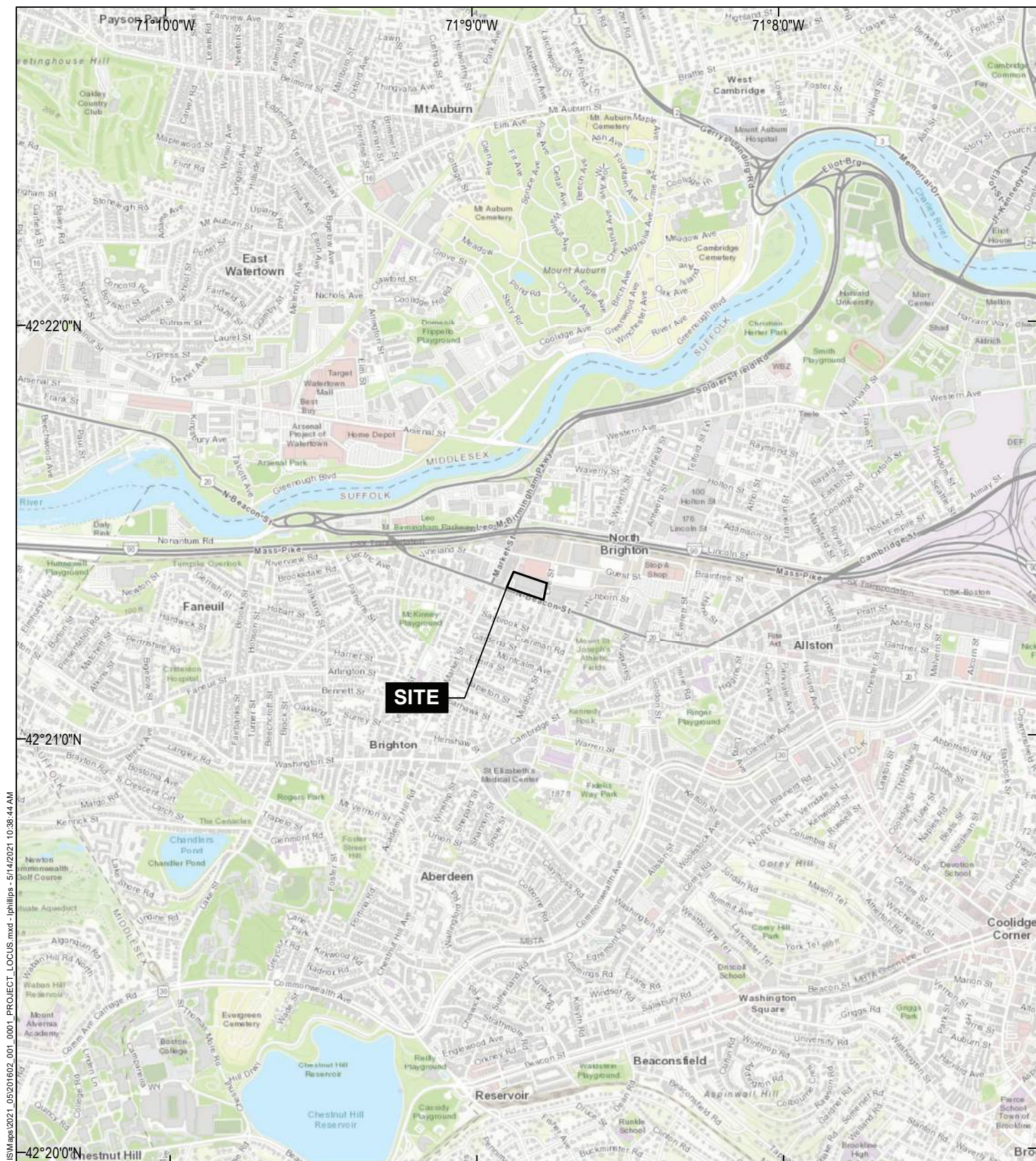
c: IQHQ-155 Beacon, LLC; Attn: William Ashton
Consigli Construction Company, Inc.; Attn: Thomas Ciampa, Aaron Shwom
Boston Water and Sewer Commission; Attn: Jodi Dobay, Francis McLaughlin
Massachusetts Department of Environmental Protection; Attn: Catherine Coniaris

TABLE I
SUMMARY OF WATER QUALITY DATA
155 NORTH BEACON STREET
BRIGHTON, MASSACHUSETTS
FILE NO. 0201602-000

	Action Level							
Location Name			HA21-B1(OW)	HA21-B1(OW)	HA21-B6(OW)	HA21-B6A(OW)	HA21-B9(OW)	Charles River SDO 037
Sample Name			HA21-B1(OW)_20220201	HA21-B1(OW)_20220202	HA21-B6(OW)_20220202	HA21-B6A(OW)_20220201	HA21-B9(OW)_20220203	RECEIVING WATER-20220203
Sample Date	2017	2014	02/01/2022	02/02/2022	02/02/2022	02/01/2022	02/03/2022	02/03/2022
Lab Sample ID	NPDES RGP	MassDEP MCP	L2205323-01	L2205601-01	L2205601-02	L2205320-01	L2205987-01	L2205983-01
Well Screen Interval (ft, BCB) (Note 5)	Effluent	RCGW-2	35.7 to 25.7	35.7 to 25.7	3.5 to -6.5	37.5 to 27.5	37.0 to 27.0	NA
Groundwater Elevation (ft, BCB) (Note 6)	Limitations	Reportable Concentrations	31.0	31.0	31.3	34.0	31.0	NA
Sample Type			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Receiving Water
Volatile Organic Compounds (ug/L)								
1,1,1-Trichloroethane	200	4000	ND (2)	-	ND (2)	ND (1)	ND (1)	-
1,1,2-Trichloroethane	5	900	ND (1.5)	-	ND (1.5)	ND (1)	ND (1)	-
1,1-Dichloroethane	70	2000	ND (1.5)	-	ND (1.5)	ND (1)	ND (1)	-
1,1-Dichloroethene	3.2	80	ND (1)	-	1.1	ND (1)	ND (1)	-
1,2-Dibromoethane (Ethylene Dibromide)	0.05	2	ND (0.01)	-	ND (0.01)	ND (2)	ND (2)	-
1,2-Dichlorobenzene	600	2000	ND (5)	-	ND (5)	ND (1)	ND (1)	-
1,2-Dichloroethane	5	5	ND (1.5)	-	ND (1.5)	ND (1)	ND (1)	-
1,3-Dichlorobenzene	320	6000	ND (5)	-	ND (5)	ND (1)	ND (1)	-
1,4-Dichlorobenzene	5	60	ND (5)	-	ND (5)	ND (1)	ND (1)	-
1,4-Dioxane	200	6000	-	-	-	ND (250)	ND (250)	-
Acetone	7970	50000	ND (10)	-	ND (10)	ND (5)	7.5	-
Benzene	5	1000	ND (1)	-	ND (1)	ND (0.5)	ND (0.5)	-
Carbon tetrachloride	4.4	2	ND (1)	-	ND (1)	ND (1)	ND (1)	-
cis-1,2-Dichloroethene	70	20	ND (1)	-	82	ND (1)	ND (1)	-
Ethylbenzene	NA	5000	ND (1)	-	ND (1)	ND (1)	ND (1)	-
m,p-Xylenes	NA	3000	ND (2)	-	ND (2)	ND (2)	ND (2)	-
Methyl Tert Butyl Ether (MTBE)	70	5000	ND (10)	-	ND (10)	ND (2)	ND (2)	-
Methylene chloride (Dichloromethane)	4.6	2000	ND (1)	-	ND (1)	ND (2)	ND (2)	-
Naphthalene	20	700	-	-	-	ND (2)	ND (2)	-
o-Xylene	NA	3000	ND (1)	-	ND (1)	ND (1)	ND (1)	-
Tert-Amyl Methyl Ether (TAME)	90	NA	ND (20)	-	ND (20)	ND (2)	ND (2)	-
Tert-Butyl Alcohol (tert-Butanol)	120	NA	ND (100)	-	ND (100)	-	-	-
Tetrachloroethene	5	50	ND (1)	-	11	ND (1)	ND (1)	-
Toluene	NA	40000	ND (1)	-	ND (1)	ND (1)	ND (1)	-
Trichloroethene	5	5	ND (1)	-	52	ND (1)	ND (1)	-
Vinyl chloride	2	2	ND (1)	-	18	ND (1)	ND (1)	-
Xylene (total)	NA	3000	ND (1)	-	ND (1)	ND (1)	ND (1)	-
Total BTEX	100	NA	ND	-	ND	ND	ND	-
Volatile Organic Compounds (SIM) (ug/L)								
1,4-Dioxane	200	6000	ND (5)	-	ND (5)	-	-	-
Semi-Volatile Organic Compounds (ug/L)								
1,2-Dichlorobenzene	600	2000	-	-	-	ND (2)	ND (2)	-
1,3-Dichlorobenzene	320	6000	-	-	-	ND (2)	ND (2)	-
1,4-Dichlorobenzene	5	60	-	-	-	ND (2)	ND (2)	-
bis(2-Ethylhexyl)phthalate (Diethylhexyl phthalate)	101	50000	ND (2.2)	-	ND (2.2)	ND (3)	ND (3)	-
Butyl benzylphthalate	NA	10000	ND (5)	-	ND (5)	ND (5)	ND (5)	-
Diethyl phthalate	NA	9000	ND (5)	-	ND (5)	ND (5)	ND (5)	-
Dimethyl phthalate	NA	50000	ND (5)	-	ND (5)	ND (5)	ND (5)	-
Di-n-butylphthalate	NA	5000	ND (5)	-	ND (5)	ND (5)	ND (5)	-
Di-n-octyl phthalate	NA	100000	ND (5)	-	ND (5)	ND (5)	ND (5)	-
Total Phthalates	190	NA	ND	-	ND	ND	ND	-
Phenol	300	2000	-	-	-	ND (5)	ND (5)	-
Semi-Volatile Organic Compounds (SIM) (ug/L)								
Acenaphthene	NA	6000	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Acenaphthylene	NA	40	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Anthracene	NA	30	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Benzo(a)anthracene	1	1000	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Benzo(a)pyrene	1	500	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Benzo(b)fluoranthene	1	400	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Benzo(g,h,i)perylene	NA	20	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Benzo(k)fluoranthene	1	100	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Chrysene	1	70	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Dibenz(a,h)anthracene	1	40	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Fluoranthene	NA	200	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Fluorene	NA	40	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Indeno(1,2,3-cd)pyrene	1	100	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Naphthalene	20	700	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Pentachlorophenol	1	200	ND (1)	-	ND (1)	ND (0.8)	ND (0.8)	-
Phenanthrene	NA	10000	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Pyrene	NA	20	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	-
Total Group I Polycyclic Aromatic Hydrocarbons	1	NA	ND	-	ND	ND	ND	-
Total Group II Polycyclic Aromatic Hydrocarbons	100	NA	ND	-	ND	ND	ND	-
Ethanol (ug/L)								
	Report	NA	ND (0.02)	-	ND (0.02)	-	-	-
Total Petroleum Hydrocarbons (ug/L)								
	5000	5000	-	ND (4000)	ND (4000)	-	-	-
EPH (ug/L)								
C11-C22 Aromatic Hydrocarbons, Adjusted	NA	5000	-	-	-	ND (100)	ND (100)	-
C19-C36 Aliphatic Hydrocarbons	NA	50000	-	-	-	ND (100)	ND (100)	-
C9-C18 Aliphatic Hydrocarbons	NA	5000	-	-	-	ND (100)	ND (100)	-
VPH (ug/L)								
C5-C8 Aliphatic Hydrocarbons, Adjusted	NA	3000	-	-	-	ND (100)	ND (100)	-
C9-C10 Aromatic Hydrocarbons	NA	4000	-	-	-	ND (100)	ND (100)	-
C9-C12 Aliphatic Hydrocarbons, Adjusted	NA	5000	-	-	-	ND (100)	ND (100)	-
Metals (ug/L)								
Antimony, Total	206	8000	ND (4)	-	ND (4)	-	-	ND (40)
Arsenic, Total	104	900	ND (1)	-	3.8	-	-	ND (10)
Cadmium, Total	10.2	4	ND (0.2)	-	ND (0.2)	-	-	ND (2)
Chromium, Total	NA	300	1.47	-	ND (1)	-	-	ND (10)
Chromium III (Trivalent), Total	323	600	ND (10)	-	ND (10)	-	-	ND (10)
Chromium VI (Hexavalent), Total	323	300	ND (10)	-	ND (10)	-	-	ND (10)
Copper, Total	242	100000	ND (1)	-	ND (2)	-	-	33.74
Iron, Total	5000	NA	256	-	238	-	-	6260
Lead, Total	160	10	ND (1)	-	ND (1)	-	-	32.49
Mercury, Total	0.739	20	ND (0.2)	-	ND (0.4)	-	-	ND (1)
Nickel, Total	1450	200	3.98	-	ND (2)	-	-	ND (20)
Selenium, Total	235.8	100	ND (5)	-	ND (5)	-	-	ND (50)
Silver, Total	35.1	7	0.59	-	ND (0.4)	-	-	ND (4)
Zinc, Total	420	900	ND (10)	-	10.17	-	-	172.7
Polychlorinated Biphenyls (ug/L)								
Aroclor-1016 (PCB-1016)	NA	5	ND (0.25)	-	ND (0.25)	-	-	-
Aroclor-1221 (PCB-1221)	NA	5	ND (0.25)	-	ND (0.25)	-	-	-
Aroclor-1232 (PCB-1232)	NA	5	ND (0.25)	-	ND (0.25)	-	-	-
Aroclor-1242 (PCB-1242)	NA	5	ND (0.25)	-	ND (0.25)	-	-	-
Aroclor-1248 (PCB-1248)	NA	5	ND (0.25)	-	ND (0.25)	-	-	-
Aroclor-1254 (PCB-1254)	NA	5	ND (0.25)	-	ND (0.25)	-	-	-
Aroclor-1260 (PCB-1260)	NA	5	ND (0.2)	-	ND (0.2)	-	-	-
SUM of Polychlorinated Biphenyls								
	0.000064	5	ND	-	ND	-	-	-
Other								
pH (SU)	6.5 to 8.3	NA	6.7	-	7.6	-	-	6.8
Ammonia, Total (ug/L)	Report	NA	402	-	135	-	-	1280
Chloride, Total (ug/L)	Report	NA	2090000	-	199000	-	-	-
Residual Chlorine, Total (ug/L)	200	NA	ND (20)	-	ND (20)	-	-	-
Hardness, Total (ug/L)	NA	NA	1380000	-	240000	-	-	115000
Cyanide, Total (ug/L)	178000	30	ND (5)	-	ND (5)	-	-	-
Total Phenols (ug/L)	1080	NA	ND (30)	-	ND (30)	-	-	-
Total Suspended Solids (TSS) (ug/L)	30000	NA	ND (5000)	-	7300	-	-	-
Temperature (°C) (Note 7)	28.33	NA	9.6	9.6	12.4	10.0	13.3	5.9

ABBREVIATIONS AND NOTES:
ug/L: micrograms per liter
-: Not Analyzed
MassDEP: Massachusetts Department of Environmental Protection
MCP: 310 CMR 40.0000 Massachusetts Contingency Plan effective 25 April 2014; revisions 23 May 2014
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit
NPDES: National Pollutant Discharge Elimination System
RGP: Remediation General Permit
SU: Standard Units

- For test methods used, see the laboratory data reports.
- This table includes only those Volatile Organic Compounds and Semi-Volatile Organic Compounds detected and/or included in Table 2 of the NPDES RGP. For a complete list of analytes, refer to the laboratory data reports.
- Bold** values indicate an exceedance of the applicable NPDES RGP Effluent Limitations, determined in accordance with the procedures outlined in the EPA-suggested Water Quality Based Effluent Limitation (WQBEL) Calculation spreadsheet.
- Bold ND** values indicate the laboratory reporting limit exceeds the applicable NPDES RGP Effluent Limitation.
- Elevations are in feet and refer to the Boston City Base (BCB) Datum.
- Groundwater elevations measured in the field on the sample dates indicated.
- Receiving water and groundwater temperature measured in the field on the sample dates indicated.



MAP SOURCE: ESRI
SITE COORDINATES: 42°21'23"N, 71°08'50"W

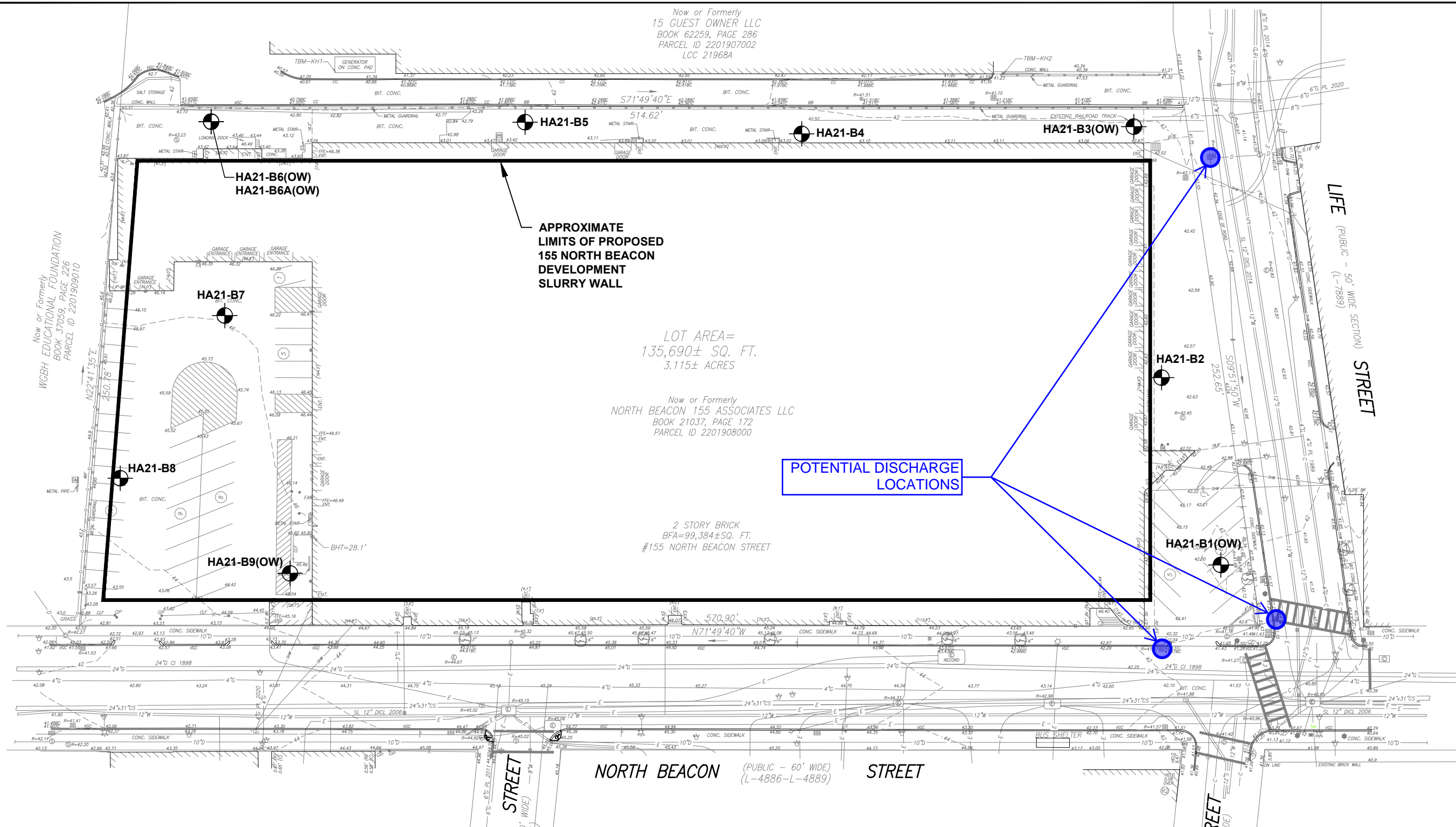
**HALEY
ALDRICH**

155 NORTH BEACON STREET
BRIGHTON, MASSACHUSETTS

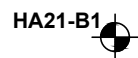
PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
MARCH 2022

FIGURE 1



LEGEND



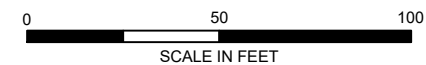
DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING EXPLORATION DRILLED BY NORTHERN DRILL SERVICE, INC. DURING THE PERIOD FROM 2 TO 16 DECEMBER 2021 AND OBSERVED BY HALEY & ALDRICH, INC.

(OW)

INDICATES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE

NOTES

1. BASE PLAN OBTAINED FROM DRAWING TITLED "ALTA/NSPS LAND TITLE SURVEY, 155 NORTH BEACON STREET", PREPARED BY FELDMAN LAND SURVEYORS AND DATED 20 MAY 2021.
2. APPROXIMATE LIMITS OF PROPOSED SLURRY WALL OBTAINED FROM DRAWING TITLED "LIFE SCIENCES CAMPUS, 155 NORTH BEACON STREET - SITE LAYOUT PLAN" PREPARED BY ELLENZWEIG AND DATED 12 NOVEMBER 2021.
3. ELEVATIONS ARE IN FEET AND REFERENCE THE BOSTON CITY BASE (BCB) DATUM, WHICH IS 5.65 FEET BELOW THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) AND 6.46 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. TECHNICAL MONITORING OF THE TEST BORINGS CONDUCTED IN 2021 WAS PERFORMED BY HALEY & ALDRICH, INC.; THE LOCATION OF THE EXPLORATIONS IN 2021 WERE ESTIMATED BY TAPING TO EXISTING SITE FEATURES IN THE FIELD AND SHOULD BE CONSIDERED APPROXIMATE.



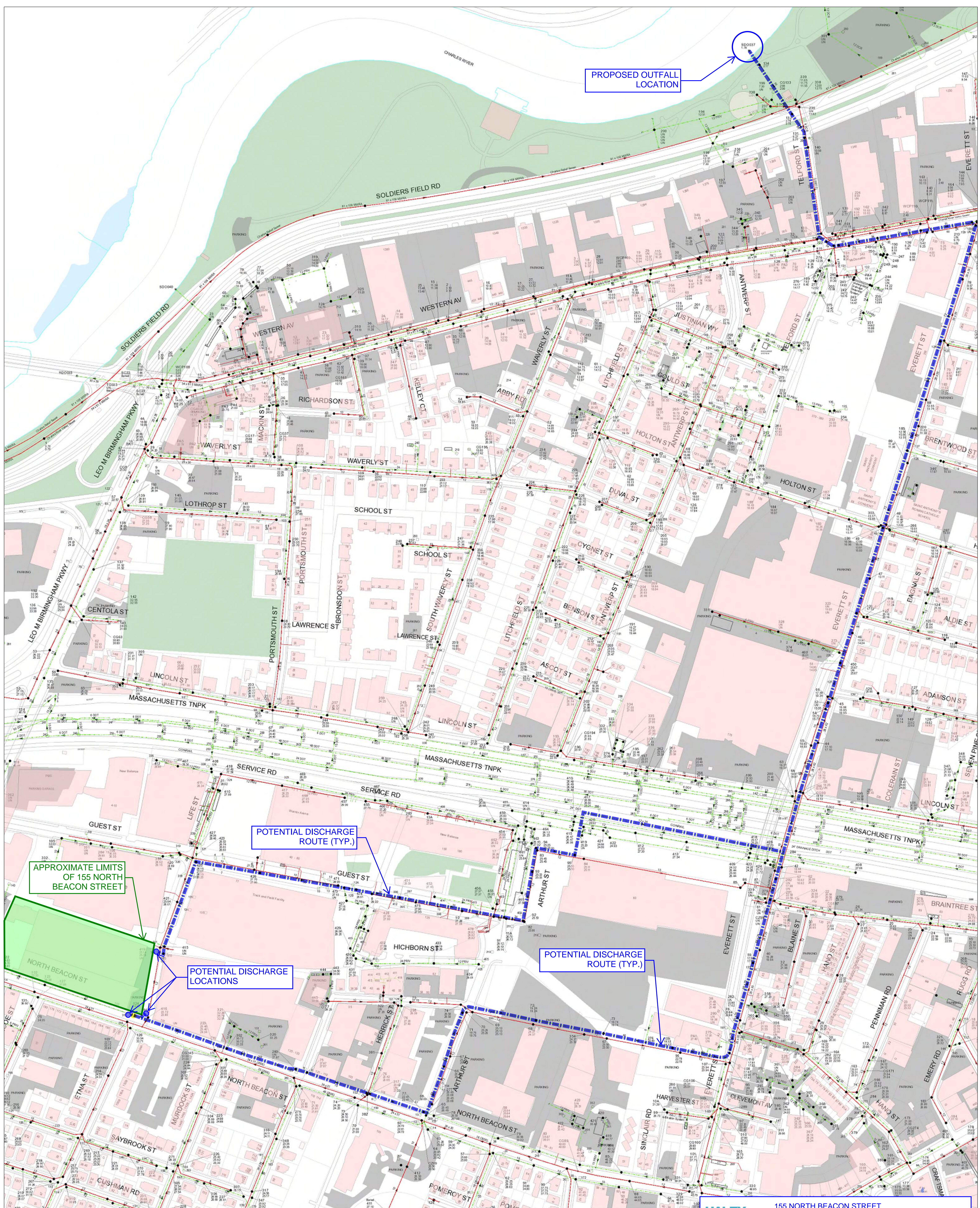
**HALEY
ALDRICH**

155 NORTH BEACON STREET
BRIGHTON, MASSACHUSETTS

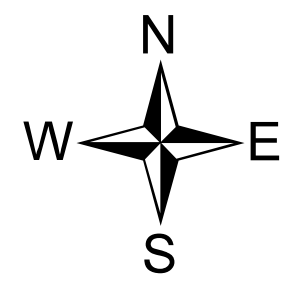
SITE AND SUBSURFACE EXPLORATION LOCATION PLAN

SCALE: AS SHOWN
MARCH 2022

FIGURE 2



BOSTON WATER AND SEWER
Copyright © Boston Water and Sewer Commission.
All rights reserved. Printed on: 5/20/2021



0 100 200 400 600 800
Feet

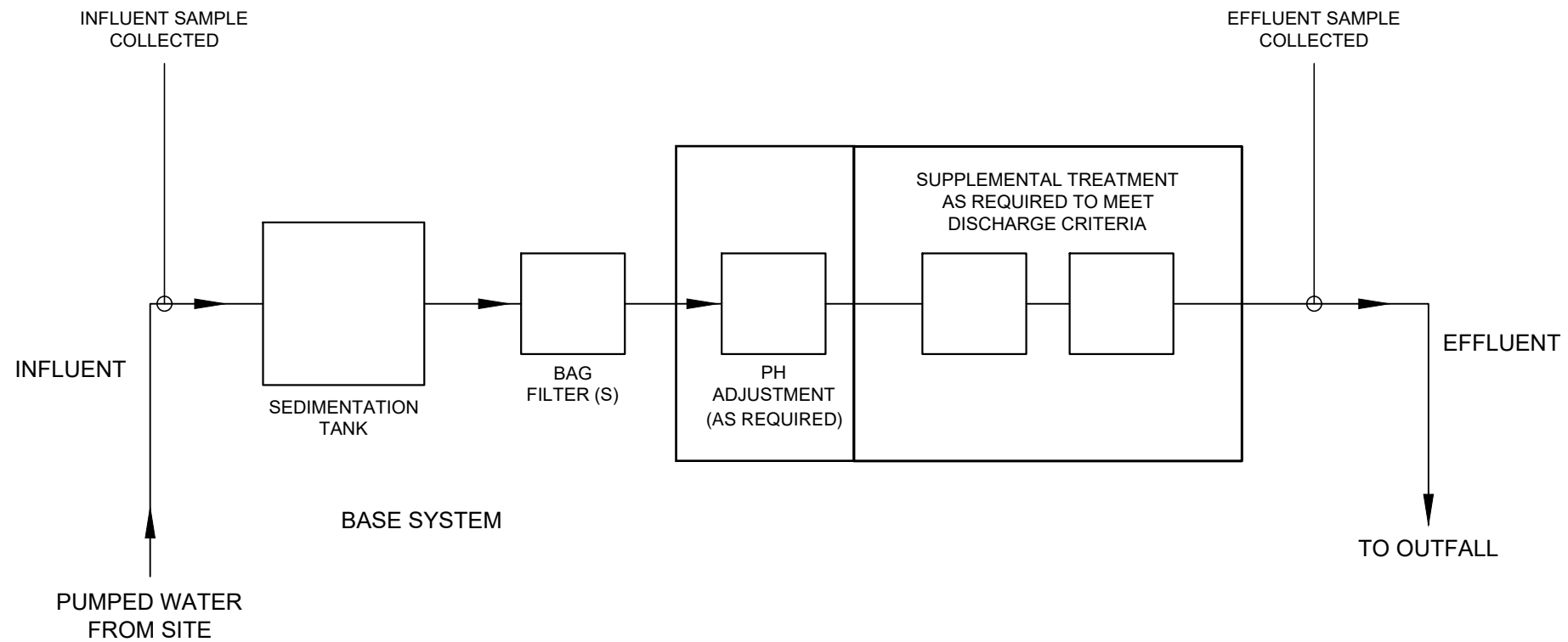
**HALEY
ALDRICH**

155 NORTH BEACON STREET
BRIGHTON, MASSACHUSETTS

**BWSC PROPOSED DISCHARGE
ROUTE AND LOCATION**

SCALE: AS SHOWN
MARCH 2022

FIGURE 3



LEGEND

—▶ DIRECTION OF FLOW

NOTE

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

**HALEY
ALDRICH**

155 NORTH BEACON STREET
BRIGHTON, MASSACHUSETTS

PROPOSED TREATMENT SYSTEM SCHEMATIC

SCALE: NONE
MARCH 2022

FIGURE 4

APPENDIX A

Remediation General Permit Notice of Intent

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

A. General site information:

1. Name of site: 155 North Beacon Street	Site address: 155 North Beacon Street Street:		
2. Site owner IQHQ-155 Beacon, LLC Owner is (check one): <input type="checkbox"/> Federal <input type="checkbox"/> State/Tribal <input checked="" type="checkbox"/> Private <input type="checkbox"/> Other; if so, specify:	City: Boston	State: MA	Zip: 02135
3. Site operator, if different than owner Consigli Construction Company, Inc.	Contact Person: William Ashton Telephone: 617-314-7951 Email: washton@iqhqreit.com		
	Mailing address: One Boston Place 201 Washington Street, Suite 3920 Street:		
4. NPDES permit number assigned by EPA: N/A NPDES permit is (check all that apply): <input checked="" type="checkbox"/> RGP <input type="checkbox"/> DGP <input type="checkbox"/> CGP <input type="checkbox"/> MSGP <input type="checkbox"/> Individual NPDES permit <input type="checkbox"/> Other; if so, specify:	City: Boston	State: MA	Zip: 02108
	5. Other regulatory program(s) that apply to the site (check all that apply): <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> MA Chapter 21e; list RTN(s): TBD <input type="checkbox"/> NH Groundwater Management Permit or Groundwater Release Detection Permit: </div> <div> <input type="checkbox"/> CERCLA <input type="checkbox"/> UIC Program <input type="checkbox"/> POTW Pretreatment <input type="checkbox"/> CWA Section 404 </div> </div>		

B. Receiving water information:

1. Name of receiving water(s): Charles River	Waterbody identification of receiving water(s): MA72-36	Classification of receiving water(s): B
Receiving water is (check any that apply): <input type="checkbox"/> Outstanding Resource Water <input type="checkbox"/> Ocean Sanctuary <input type="checkbox"/> territorial sea <input type="checkbox"/> Wild and Scenic River		
2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Are sensitive receptors present near the site? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, specify:		
3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. Lower Charles River on 2018/2020 MA Integrated List of Waters, all uses impaired, TMDLs: 32371 and 33826		
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.		15.7 MGD
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.		110.0
6. Has the operator received confirmation from the appropriate State for the 7Q10 and dilution factor indicated? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, indicate date confirmation received: In the process of confirming the 7Q10 and Dilution Factor with MassDEP; will forward confirmation to EPA when received		
7. Has the operator attached a summary of receiving water sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

C. Source water information:

1. Source water(s) is (check any that apply):			
<input checked="" type="checkbox"/> Contaminated groundwater Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> 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): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> The receiving water	<input type="checkbox"/> Potable water; if so, indicate municipality or origin: <input checked="" type="checkbox"/> Other; if so, specify: Seepage, precipitation, surface water runoff
		<input type="checkbox"/> A surface water other than the receiving water; if so, indicate waterbody:	

2. Source water contaminants: PCE, TCE, cis-1,2-DCE and Vinyl Chloride above Effluent Limitations; see Table I for additional compounds detected	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance with the instructions in Appendix VIII? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): <input type="checkbox"/> Existing discharge <input checked="" type="checkbox"/> New discharge <input type="checkbox"/> New source	
Outfall(s): SDO 037 to Charles River	Outfall location(s): (Latitude, Longitude) 42.3646778, -71.138383
<p>Discharges enter the receiving water(s) via (check any that apply): <input type="checkbox"/> Direct discharge to the receiving water <input checked="" type="checkbox"/> Indirect discharge, if so, specify:</p> <p>Storm drain system located adjacent to site, operated by Boston Water and Sewer Commission</p> <p><input type="checkbox"/> A private storm sewer system <input checked="" type="checkbox"/> A municipal storm sewer system</p> <p>If the discharge enters the receiving water via a private or municipal storm sewer system:</p> <p>Has notification been provided to the owner of this system? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Has the operator has received permission from the owner to use such system for discharges? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, if so, explain, with an estimated timeframe for obtaining permission: BWSC Dewatering Discharge Permit Application Submitted Concurrently with this NOI</p> <p>Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
Provide the expected start and end dates of discharge(s) (month/year): 10/1/2022 to 10/1/2024	
Indicate if the discharge is expected to occur over a duration of: <input type="checkbox"/> less than 12 months <input checked="" type="checkbox"/> 12 months or more <input type="checkbox"/> is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

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

* COMPOUNDS DETECTED IN SOIL ONLY

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		✓	2	121,4500N	75	402	268.5	Report mg/L	---
Chloride		✓	2	44,300.0	50000	2090000	1144500	Report µg/l	---
Total Residual Chlorine	✓		2	121,4500C	20	<20	<20	0.2 mg/L	
Total Suspended Solids		✓	2	121,2540D	5000	7300	7300	30 mg/L	---
Antimony	✓		2	3200.8	4	<4	<4	206 µg/L	
Arsenic		✓	2	3200.8	1	3.8	3.8	104 µg/L	
Cadmium	✓		2	3200.8	0.2	<0.2	<0.2	10.2 µg/L	
Chromium III	✓		2	3200.8	10	<10	<10	323 µg/L	
Chromium VI	✓		2	1,7196A	10	<10	<10	323 µg/L	
Copper	✓		2	3200.8	1	<1	<1	242 µg/L	
Iron		✓	2	19,200.7	50	256	247	5,000 µg/L	
Lead	✓		2	3200.8	1	<1	<1	160 µg/L	
Mercury	✓		2	3,245.1	0.2	<0.2	<0.2	0.739 µg/L	
Nickel		✓	2	3200.8	2	3.98	3.98	1,450 µg/L	
Selenium	✓		2	3200.8	5	<5	<5	235.8 µg/L	
Silver		✓	2	3200.8	0.4	0.59	0.59	35.1 µg/L	
Zinc		✓	2	3200.8	10	10.17	10.17	420 µg/L	
Cyanide	✓		2	121,4500C	5	<5	<5	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX	✓		4	128,624.1	1	<1	<1	100 µg/L	---
Benzene	✓		4	128,624.1	1	<1	<1	5.0 µg/L	---
1,4 Dioxane	✓		4	128,624.1	5	<5	<5	200 µg/L	---
Acetone		✓	4	128,624.1	5	7.5	7.5	7.97 mg/L	---
Phenol	✓		4	4,420.1	30	<30	<30	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	✓		4	128,624.1	1	<1	<1	4.4 µg/L	
1,2 Dichlorobenzene	✓		4	128,624.1	5	<5	<5	600 µg/L	---
1,3 Dichlorobenzene	✓		4	128,624.1	5	<5	<5	320 µg/L	---
1,4 Dichlorobenzene	✓		4	128,624.1	5	<5	<5	5.0 µg/L	---
Total dichlorobenzene	✓		4	128,624.1	5	<5	<5	763 µg/L in NH	---
1,1 Dichloroethane	✓		4	128,624.1	1.5	<1.5	<1.5	70 µg/L	---
1,2 Dichloroethane	✓		4	128,624.1	1.5	<1.5	<1.5	5.0 µg/L	---
1,1 Dichloroethylene		✓	4	128,624.1	1	1.1	1.1	3.2 µg/L	---
Ethylene Dibromide	✓		4	14,504.1	0.01	<0.01	<0.01	0.05 µg/L	---
Methylene Chloride	✓		4	128,624.1	1	<1	<1	4.6 µg/L	---
1,1,1 Trichloroethane	✓		4	128,624.1	2	<2	<2	200 µg/L	---
1,1,2 Trichloroethane	✓		4	128,624.1	1.5	<1.5	<1.5	5.0 µg/L	---
Trichloroethylene		✓	4	128,624.1	1	52	52	5.0 µg/L	---
Tetrachloroethylene		✓	4	128,624.1	1	11	11	5.0 µg/L	
cis-1,2 Dichloroethylene		✓	4	128,624.1	1	82	82	70 µg/L	---
Vinyl Chloride		✓	4	128,624.1	1	18	18	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✓		4	129, 625.1	2.2	<2.2	<2.2	190 µg/L	
Diethylhexyl phthalate	✓		4	129, 625.1	2.2	<2.2	<2.2	101 µg/L	
Total Group I PAHs	✓		4	129, 625.1	0.1	<0.1	<0.1	1.0 µg/L	---
Benzo(a)anthracene	✓		4	129, 625.1	0.1	<0.1	<0.1	As Total PAHs	
Benzo(a)pyrene	✓		4	129, 625.1	0.1	<0.1	<0.1		
Benzo(b)fluoranthene	✓		4	129, 625.1	0.1	<0.1	<0.1		
Benzo(k)fluoranthene	✓		4	129, 625.1	0.1	<0.1	<0.1		
Chrysene	✓		4	129, 625.1	0.1	<0.1	<0.1		
Dibenzo(a,h)anthracene	✓		4	129, 625.1	0.1	<0.1	<0.1		
Indeno(1,2,3-cd)pyrene	✓		4	129, 625.1	0.1	<0.1	<0.1		

[illegible]

Compounds Detected in Soil:

A. Inorganics

Antimony
Arsenic*
Barium
Beryllium
Cadmium
Chromium
Lead
Lead, TCLP
Mercury
Nickel*
Vanadium
Zinc*

B. Non-Halogenated VOCs

Acetone*
Ethylbenzene
p-Isopropyltoluene
Naphthalene
Toluene
Xylenes (total)

C. Halogenated VOCs

1,1-Dichloroethane
1,1-Dichloroethene*
cis-1,2-Dichloroethene*
Tetrachloroethene*
Trichloroethene*
Vinyl chloride*

D. Non-Halogenated SVOCs

2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Biphenyl
Butyl benzyl phthalate
Chrysene
Dibenz(a,h)anthracene
Dibenzofuran
Fluoranthene
Fluorene
Indeno(1,2,3-cd)pyrene
Naphthalene
Phenanthrene
Pyrene

E. Halogenated SVOCs

PCBs Aroclor-1254

F. Fuels Parameters

Total Petroleum Hydrocarbons

**Compound also detected in groundwater*

E. Treatment system information

<p>1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)</p> <p> <input type="checkbox"/> Adsorption/Absorption <input type="checkbox"/> Advanced Oxidation Processes <input type="checkbox"/> Air Stripping <input checked="" type="checkbox"/> Granulated Activated Carbon (“GAC”)/Liquid Phase Carbon Adsorption <input type="checkbox"/> Ion Exchange <input type="checkbox"/> Precipitation/Coagulation/Flocculation <input checked="" type="checkbox"/> Separation/Filtration <input checked="" type="checkbox"/> Other; if so, specify: pH adjustment and/or other treatment as required to meet effluent limitations </p>	
<p>2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.</p> <p>Prior to discharge, collected water is routed through a sedimentation tank and bag filters to remove suspended solids and undissolved chemical constituents, including metals. Total flow will be measured with a flow meter/totalizer. Additional treatment will include Granular Activated Carbon (GAC) to remove chlorinated solvents to within effluent limitations. Supplemental treatment may be required to meeting effluent limitations and may include oil/water separators, pH control and/or other components as necessary.</p> <p>Identify each major treatment component (check any that apply):</p> <p> <input checked="" type="checkbox"/> Fractionation tanks <input type="checkbox"/> Equalization tank <input type="checkbox"/> Oil/water separator <input type="checkbox"/> Mechanical filter <input type="checkbox"/> Media filter <input type="checkbox"/> Chemical feed tank <input type="checkbox"/> Air stripping unit <input checked="" type="checkbox"/> Bag filter <input checked="" type="checkbox"/> Other; if so, specify: Granular Activated Carbon (GAC) </p> <p>Indicate if either of the following will occur (check any that apply):</p> <p> <input type="checkbox"/> Chlorination <input type="checkbox"/> De-chlorination </p>	
<p>3. Provide the design flow capacity in gallons per minute (gpm) of the most limiting component.</p> <p>Indicate the most limiting component: Bag filters</p> <p>Is use of a flow meter feasible? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, if so, provide justification:</p>	<p>100 GPM</p>
<p>Provide the proposed maximum effluent flow in gpm.</p>	<p>100 GPM</p>
<p>Provide the average effluent flow in gpm.</p>	<p>25 GPM</p>
<p>If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:</p>	<p>NA</p>
<p>4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	

F. Chemical and additive information

<p>1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)</p> <p><input type="checkbox"/> Algaecides/biocides <input type="checkbox"/> Antifoams <input type="checkbox"/> Coagulants <input type="checkbox"/> Corrosion/scale inhibitors <input type="checkbox"/> Disinfectants <input type="checkbox"/> Flocculants <input type="checkbox"/> Neutralizing agents <input type="checkbox"/> Oxidants <input type="checkbox"/> Oxygen <input type="checkbox"/> scavengers <input type="checkbox"/> pH conditioners <input type="checkbox"/> Bioremedial agents, including microbes <input type="checkbox"/> Chlorine or chemicals containing chlorine <input checked="" type="checkbox"/> Other; if so, specify: The site contractor has not yet submitted their construction dewatering submittal which will include details of the proposed treatment system along with Safety Data Sheets (SDSs).</p>
<p>2. Provide the following information for each chemical/additive, using attachments, if necessary:</p> <p>a. Product name, chemical formula, and manufacturer of the chemical/additive; b. Purpose or use of the chemical/additive or remedial agent; c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive; d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive; e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).</p>
<p>3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance with the instructions in F, above? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive? (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

G. Endangered Species Act eligibility determination

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

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

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

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

H. National Historic Preservation Act eligibility determination

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

- ☒ **Criterion A:** No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.
- ☐ **Criterion B:** Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.
- ☐ **Criterion C:** Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.

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

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

I. Supplemental information

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

Refer to attached Haley & Aldrich, Inc. letter.

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.

A BMPP meeting the requirements of this general permit will be implemented upon initiation of
BMPP certification statement: **discharge and available for review at the site.**

Notification provided to the appropriate State, including a copy of this NOI, if required.

Check one: Yes ☒ No ☐

Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.

Check one: Yes ☒ No ☐

Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.

Check one: Yes ☒ No ☐ NA ☐

Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.

Check one: Yes ☐ No ☒ NA ☐

Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit
☐ Other; if so, specify:

Check one: Yes ☐ No ☐ NA ☒

Signature:

David Surette

Digitally signed by David Surette
DN: C=US, E=dsurette@iqhqreit.com, O=IQHQ,
OU=Development, CN=David Surette
Reason: I have reviewed this document
Date: 2022.03.31 12:12:07-04'00'

Date: **3/31/2022**

Print Name and Title: **William Ashton, Director of Development**

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.

A BMPP meeting the requirements of this general permit will be implemented upon initiation of
BMPP certification statement: discharge and available for review at the site.

Notification provided to the appropriate State, including a copy of this NOI, if required.

Check one: Yes ☒ No ☐

Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.

Check one: Yes ☒ No ☐

Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.

Check one: Yes ☒ No ☐ NA ☐

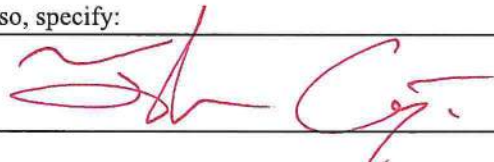
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.

Check one: Yes ☐ No ☒ NA ☐

Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:

Check one: Yes ☐ No ☐ NA ☒

Signature:



Date:

3/31/22

Print Name and Title:

THOMAS CIAMPA, SUPERINTENDENT

APPENDIX B

BWSC Dewatering Discharge Permit Application



Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129
617.886.7400

31 March 2022
File No. 0201602-000

Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue
Boston, Massachusetts 02119

Attention: Jodi Dobay

Subject: Request for Approval of Temporary Construction Dewatering
155 North Beacon Street
Brighton, Massachusetts

Ladies and Gentlemen:

On behalf of our client, IQHQ-155 Beacon, LLC, this letter submits the Boston Water and Sewer Commission (BWSC) Dewatering Discharge Permit Application in support of the proposed development located at 155 North Beacon Street in Brighton, Massachusetts.

Dewatering is necessary to enable below-grade construction in-the-dry and is anticipated to begin in October 2022 and continue for approximately two years. Prior to discharge, collected water will be routed through at minimum a sedimentation tank and bag filters to remove suspended solids and undissolved constituents, including metals. Other pre-treatment may be conducted as necessary to comply with National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) Effluent Limitations. The proposed dewatering discharge route and BWSC outfall location are shown on Figure 3 of the submitted NPDES RGP Notice of Intent (NOI), attached for reference and currently under review by the U.S. Environmental Protection Agency (EPA) under the NPDES RGP.

If you have any questions, please feel free to contact the undersigned at 617-886-7400.

Sincerely yours,
HALEY & ALDRICH, INC.

A handwritten signature in blue ink, appearing to read "Kyle Block".

Kyle Block, LSP
Senior Project Manager

A handwritten signature in blue ink, appearing to read "Jennifer L. Sweet".

Jennifer L. Sweet, P.E. (MA), LSP
Senior Associate | Program Manager

Attachments:
BWSC Dewatering Discharge Permit Application
Copy of NPDES RGP NOI Application

\\haleyaldrich.com\share\CF\Projects\0201602\NPDES RGP\Application\Appendix B - BWSC Permit App\2022-0331-HAI-155 N Beacon-BWSC Letter-F.docx



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

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: Consigli Construction Company, Inc. Address: 313 Congress Street, Boston, MA 02210

Phone Number: (508) 686-0462 Fax number: _____

Contact person name: Thomas Ciampa Title: Superintendent

Cell number: (508) 686-0462 Email address: Tciampa@consigli.com

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

Owner's Information (if different from above):

Owner of property being dewatered: IQHQ-155 Beacon, LLC

Owner's mailing address: 201 Washington Street, Suite 3920, Boston, MA 02108 Phone number: (617) 314-7951

Location of Discharge & Proposed Treatment System(s):

Street number and name: 155 North Beacon Street Neighborhood Brighton/Allston

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

Describe Proposed Pre-Treatment System(s): Refer to attached letter prepared by Haley & Aldrich, Inc.

BWSC Outfall No. SDO 037 Receiving Waters Charles River

Temporary Discharges (Provide Anticipated Dates of Discharge): From 10/01/2022 To 10/01/2024

<input type="checkbox"/> Groundwater Remediation	<input type="checkbox"/> Tank Removal/Installation	<input checked="" type="checkbox"/> Foundation Excavation
<input type="checkbox"/> Utility/Manhole Pumping	<input type="checkbox"/> Test Pipe	<input type="checkbox"/> Trench Excavation
<input checked="" type="checkbox"/> Accumulated Surface Water	<input type="checkbox"/> Hydrogeologic Testing	<input type="checkbox"/> Other _____

Permanent Discharges

<input type="checkbox"/> Foundation Drainage	<input type="checkbox"/> Crawl Space/Footing Drain
<input type="checkbox"/> Accumulated Surface Water	<input type="checkbox"/> Non-contact/Uncontaminated Cooling
<input type="checkbox"/> Non-contact/Uncontaminated Process	<input type="checkbox"/> 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: Jodi Dobay, Engineering Customer Service
E-mail: beginj@bwsc.org
Phone: 617-989-7259 Fax: 617-989-7716

Signature of Authorized Representative for Property Owner: David Surette

Date: 3/31/2022

Digitally signed by David Surette
DN: cn=David Surette, email=David.Surette@bwsc.org,
ou=Engineering, ou=Development, ou=David Surette
Reason: I have reviewed this document
Date: 2022.03.31 12:13:25-0400

APPENDIX C

Effluent Limitations and Dilution Factor Calculations

HALEY & ALDRICH, INC.		CALCULATIONS		FILE NO.	0201602-000	
CLIENT	IQHQ-155 Beacon, LLC			SHEET	1	of 1
PROJECT	155 North Beacon Street			DATE	28-Mar-22	
SUBJECT	Dilution Factor Calculations			COMPUTED BY	TLC	
				CHECKED BY	JMT	
PURPOSE: Calculate Dilution Factor (DF) for project based on 7 Day 10 Year (7Q10) Low Flow values.						
APPROACH: Calculate DF based on EPA formula $(Q_s + Q_D)/Q_D$, where Q_s is 7Q10 in million gallons per day (MGD) and Q_D is design discharge flow in MGD.						
ASSUMPTIONS: 1. 7Q10 is 24.3 cfs (from StreamStats) 2. A conversion of 7.48 is used to convert cubic feet to gallons 3. A design discharge flow rate of 100 gpm is used						
CALCULATIONS:						
7Q10 Low Flow Value (Q_s)						
$Q_s =$	$\frac{24.3 \text{ ft}^3}{\text{sec}}$	X	$\frac{7.48 \text{ gallons}}{\text{ft}^3}$	X	$\frac{86,400 \text{ sec}}{\text{day}}$	X $\frac{1 \text{ MG}}{1,000,000 \text{ gallons}}$
$Q_s =$	15.70	MGD				
Design Discharge Flow Rate (Q_D)						
$Q_D =$	$\frac{100 \text{ gallons}}{\text{min}}$	X	$\frac{1,440 \text{ min}}{\text{day}}$	X	$\frac{1 \text{ MG}}{1,000,000 \text{ gallons}}$	
$Q_D =$	0.144	MGD				
Dilution Factor (DF)						
$DF =$	$\frac{Q_s + Q_D}{Q_D}$	=	$\frac{15.70 \text{ MGD} + 0.144 \text{ MGD}}{0.144 \text{ MGD}}$	=	110.0	
CONCLUSION: The dilution factor for this project is calculated to be 110.0 based on the provided 7Q10 low flow value and design discharge flow rate.						

Enter number values in green boxes below

Enter values in the units specified

↓	
15.7	Q_R = Enter upstream flow in MGD
0.144	Q_P = Enter discharge flow in MGD
0	Downstream 7Q10

Enter a dilution factor, if other than zero

↓	
110	

Enter values in the units specified

↓	
1380	C_d = Enter influent hardness in mg/L CaCO_3
115	C_s = Enter receiving water hardness in mg/L CaCO_3

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

↓	
6.8	pH in Standard Units
5.9	Temperature in °C
1.28	Ammonia in mg/L
115	Hardness in mg/L CaCO_3
0	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
33.74	Copper in µg/L
6260	Iron in µg/L
32.49	Lead in µg/L
0	Mercury in µg/L
0	Nickel in µg/L
0	Selenium in µg/L
0	Silver in µg/L
172.7	Zinc in µg/L

Enter **influent** concentrations in the units specified

↓	
0	TRC in µg/L
0.402	Ammonia in mg/L
0	Antimony in µg/L
3.8	Arsenic in µg/L
0	Cadmium in µg/L
0	Chromium III in µg/L
1.47	Chromium VI in µg/L
0	Copper in µg/L
256	Iron in µg/L
0	Lead in µg/L
0	Mercury in µg/L
3.98	Nickel in µg/L
0	Selenium in µg/L
0.59	Silver in µg/L
10.17	Zinc in µg/L
0	Cyanide in µg/L
0	Phenol in µg/L
0	Carbon Tetrachloride in µg/L
11	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: Q_R equal to the 7Q10; enter alternate Q_R if approved by the State; enter 0 if no dilution factor approvedSaltwater (estuarine and marine): enter Q_R if approved by the State; enter 0 if no entry

Discharge flow is equal to the design flow or 1 MGD, whichever is less

Only if approved by State as the entry for Q_R ; leave 0 if no entry

Saltwater (estuarine and marine): only if approved by the State

Leave 0 if no entry

Freshwater only

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 maximumif > 10 samples, may enter 95th percentile

Enter 0 if non-detect or testing not required

Dilution Factor	110.0					
	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
A. Inorganics						
Ammonia	Report	mg/L	---			
Chloride	Report	µg/L	---			
Total Residual Chlorine	0.2	mg/L	1210	µg/L	---	µg/L
Total Suspended Solids	30	mg/L	---			
Antimony	206	µg/L	70418	µg/L		
Arsenic	104	µg/L	1100	µg/L		
Cadmium	10.2	µg/L	35.4404	µg/L		
Chromium III	323	µg/L	11495.1	µg/L		
Chromium VI	323	µg/L	1258.1	µg/L		
Copper	242	µg/L	11.4	µg/L		
Iron	5000	µg/L	1000	µg/L		
Lead	160	µg/L	4.29	µg/L		
Mercury	0.739	µg/L	99.67	µg/L		
Nickel	1450	µg/L	7002.1	µg/L		
Selenium	235.8	µg/L	550.1	µg/L		
Silver	35.1	µg/L	623.9	µg/L		
Zinc	420	µg/L	146.2	µg/L		
Cyanide	178	mg/L	572.1	µg/L	---	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	33008	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	4.4	µg/L	176.0	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	363.1	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	242.1	µg/L		
Total Group I Polycyclic Aromatic Hydrocarbons	1.0	µg/L	---			
Benzo(a)anthracene	1.0	µg/L	0.4181	µg/L	---	µg/L
Benzo(a)pyrene	1.0	µg/L	0.4181	µg/L	---	µg/L
Benzo(b)fluoranthene	1.0	µg/L	0.4181	µg/L	---	µg/L
Benzo(k)fluoranthene	1.0	µg/L	0.4181	µg/L	---	µg/L
Chrysene	1.0	µg/L	0.4181	µg/L	---	µg/L
Dibenzo(a,h)anthracene	1.0	µg/L	0.4181	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	1.0	µg/L	0.4181	µg/L	---	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	100	µg/L	---			
Naphthalene	20	µg/L	---			
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls	0.000064	µg/L	---		0.5	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	2201	µg/L		
tert-Butyl Alcohol	120	µg/L	---			
tert-Amyl Methyl Ether	90	µg/L	---			

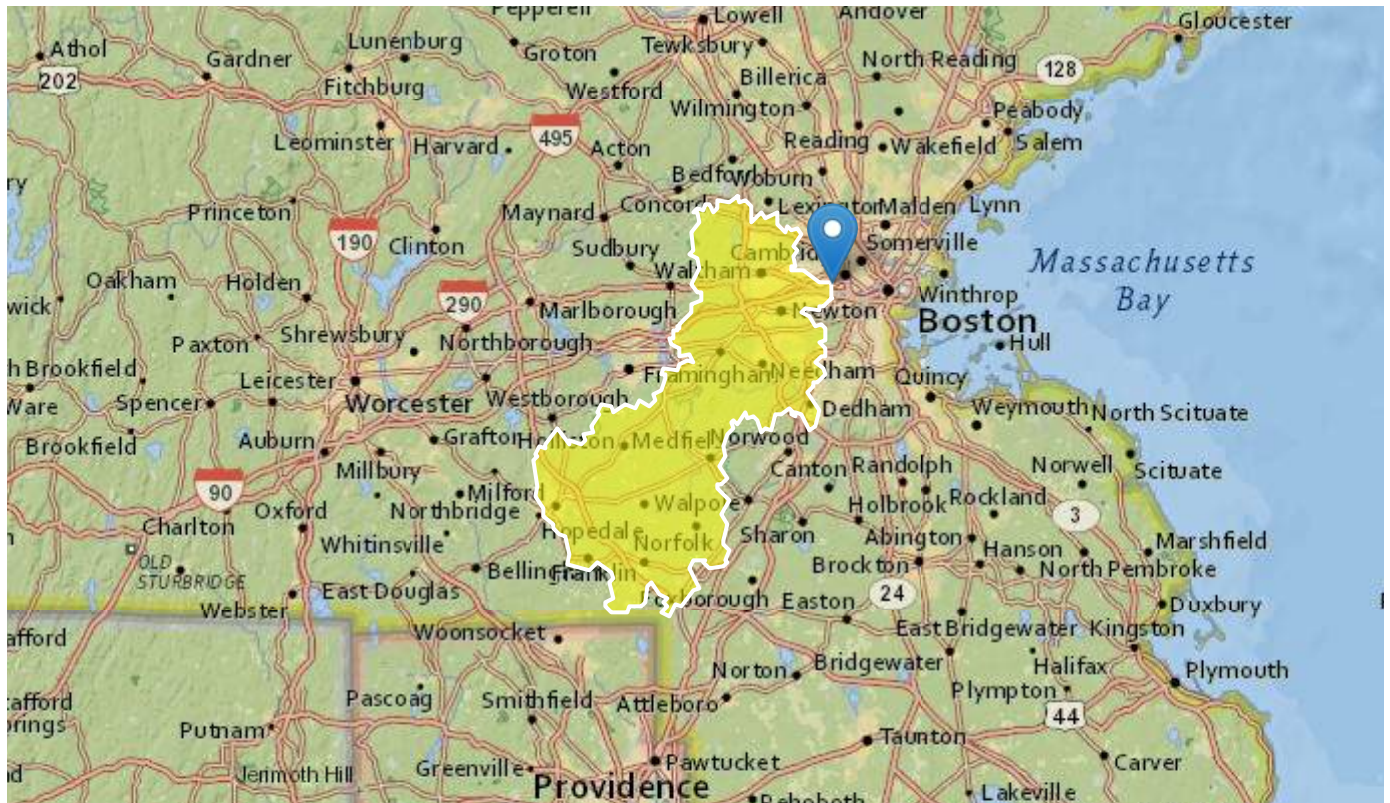
StreamStats Report

Region ID: MA

Workspace ID: MA20220323145450723000

Clicked Point (Latitude, Longitude): 42.36538, -71.13847

Time: 2022-03-23 10:55:11 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	279	square miles
ELEV	Mean Basin Elevation	202	feet
LC06STOR	Percentage of water bodies and wetlands determined from the NLCD 2006	13.21	percent
BSLDEM250	Mean basin slope computed from 1:250K DEM	2.342	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0.23	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

Peak-Flow Statistics Parameters [Peak Statewide 2016 5156]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	279	square miles	0.16	512
ELEV	Mean Basin Elevation	202	feet	80.6	1948
LC06STOR	Percent Storage from NLCD2006	13.21	percent	0	32.3

Peak-Flow Statistics Flow Report [Peak Statewide 2016 5156]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	ASEp
50-percent AEP flood	2990	ft ³ /s	1530	5850	42.3
20-percent AEP flood	4680	ft ³ /s	2360	9280	43.4
10-percent AEP flood	5950	ft ³ /s	2930	12100	44.7
4-percent AEP flood	7750	ft ³ /s	3690	16300	47.1
2-percent AEP flood	9220	ft ³ /s	4260	20000	49.4
1-percent AEP flood	10700	ft ³ /s	4790	23900	51.8
0.5-percent AEP flood	12400	ft ³ /s	5390	28500	54.1
0.2-percent AEP flood	14700	ft ³ /s	6100	35400	57.6

Peak-Flow Statistics Citations

Zarriello, P.J.,2017, Magnitude of flood flows at selected annual exceedance probabilities for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2016–5156, 99 p. (<https://dx.doi.org/10.3133/sir20165156>)

Low-Flow Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	279	square miles	1.61	149

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLDEM250	Mean Basin Slope from 250K DEM	2.342	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.23	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

Low-Flow Statistics Disclaimers [Statewide Low Flow WRIR00 4135]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit
7 Day 2 Year Low Flow	48.9	ft ³ /s
7 Day 10 Year Low Flow	24.3	ft ³ /s

Low-Flow Statistics Citations

Ries, K.G., III, 2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (<http://pubs.usgs.gov/wri/wri004135/>)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.7.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

APPENDIX D

Endangered Species Act Documentation



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:
Project Code: 2022-0023028
Project Name: 155 North Beacon St.

March 23, 2022

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

To Whom It May Concern:

Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

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. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

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 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. 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 by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the “**New England Field Office Endangered Species Project Review and Consultation**” website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

<https://www.fws.gov/newengland/endangeredspecies/project-review/index.html>

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Additional Info About Section 7 of the Act

Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines 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 Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. 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>

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) 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. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the ESA. The species' occurrence on an official species list does not convey a requirement to consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

<https://www.fws.gov/birds/policies-and-regulations.php>

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

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

Project Code: 2022-0023028
Event Code: None
Project Name: 155 North Beacon St.
Project Type: Mixed-Use Construction
Project Description: 155 North Beacon St.
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.3560961,-71.1472282953623,14z>



Counties: Suffolk County, Massachusetts

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

IPaC User Contact Information

Agency: Haley & Aldrich

Name: Taylor Cairns

Address: 465 Medford Street, Suite 2200

City: Boston

State: MA

Zip: 02129

Email: taylc3692@gmail.com

Phone: 6179813038

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Suffolk County, Massachusetts



Local office

New England Ecological Services Field Office

☎ (603) 223-2541

📅 (603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

<http://www.fws.gov/newengland>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
 2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

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>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird

species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Oct 15 to Aug 31

Black-billed Cuckoo *Coccyzus erythrophthalmus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9399>

Breeds May 15 to Oct 10

Blue-winged Warbler *Vermivora pinus*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds May 1 to Jun 30

Bobolink *Dolichonyx oryzivorus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

Canada Warbler *Cardellina canadensis*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Aug 10

Cerulean Warbler *Dendroica cerulea*

Breeds Apr 29 to Jul 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/2974>

Kentucky Warbler *Oporornis formosus*

Breeds Apr 20 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs *Tringa flavipes*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9679>

Prairie Warbler *Dendroica discolor*

Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prothonotary Warbler *Protonotaria citrea*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird *Euphagus carolinus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald Eagle
Non-BCC
Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Black-billed Cuckoo
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



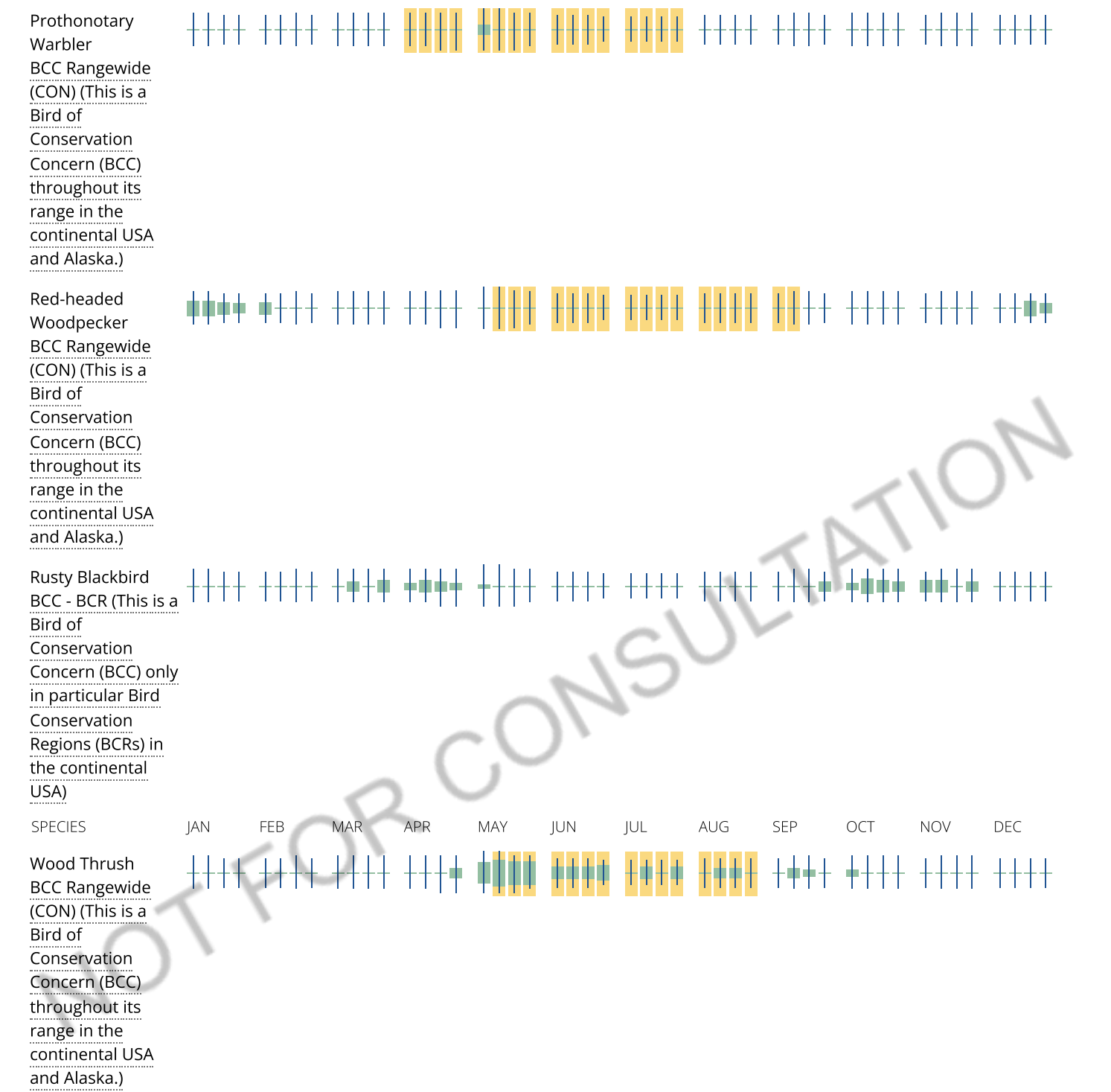
Blue-winged Warbler
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Bobolink
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

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](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

MassDEP - Bureau of Waste Site Cleanup

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

Site Information:

155 NORTH BEACON STREET
155 NORTH BEACON STREET BOSTON, MA

NAD83 UTM Meters:

4691549mN, 323167mE (Zone: 19)
March 24, 2022

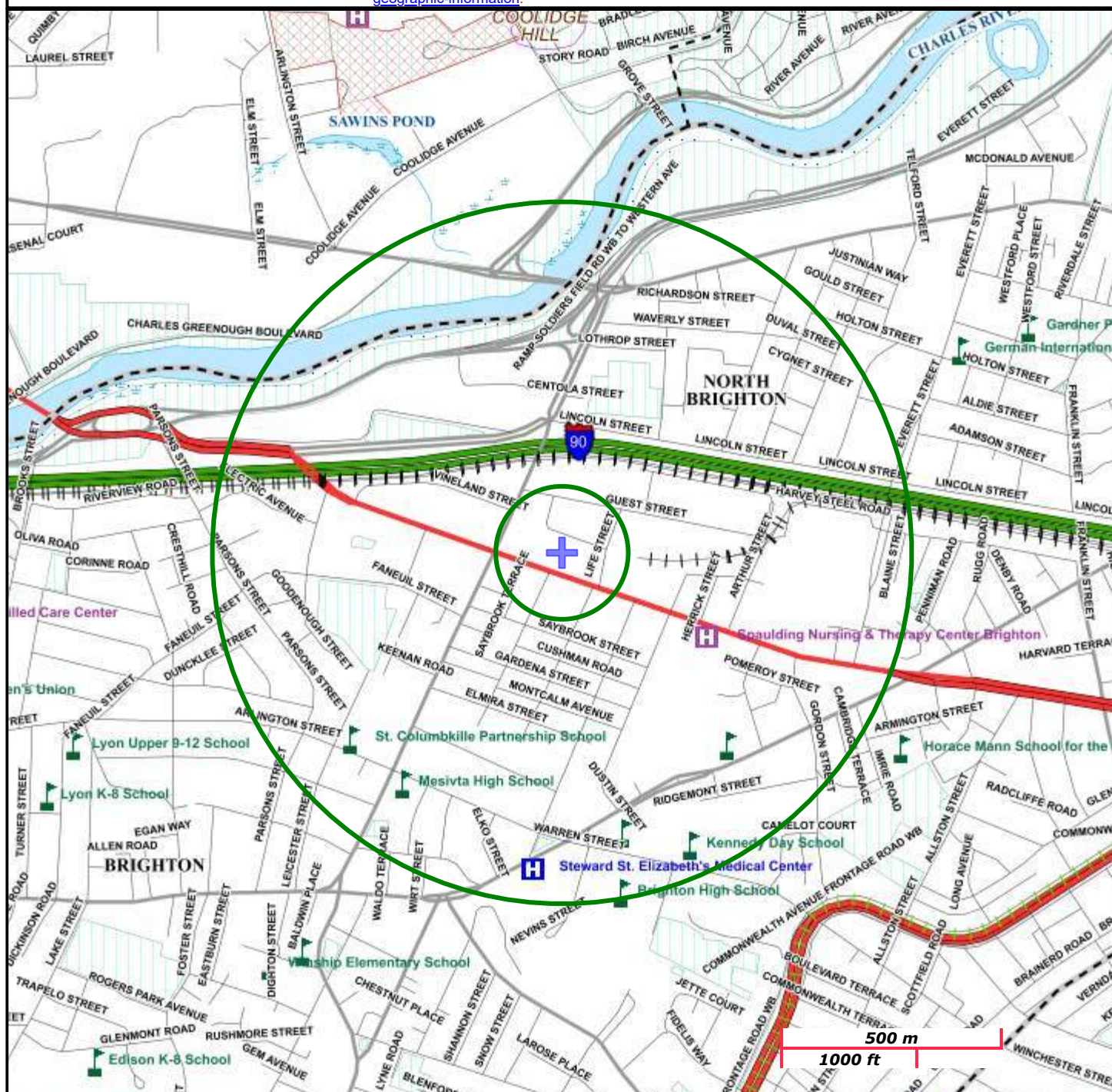
The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at:

<https://www.mass.gov/orgs/massgis-bureau-of-geographic-information>



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.

APPENDIX E

National Register of Historic Places and Massachusetts Historical Commission Documentation

Massachusetts Cultural Resource Information System

MACRIS



MACRIS Search Results

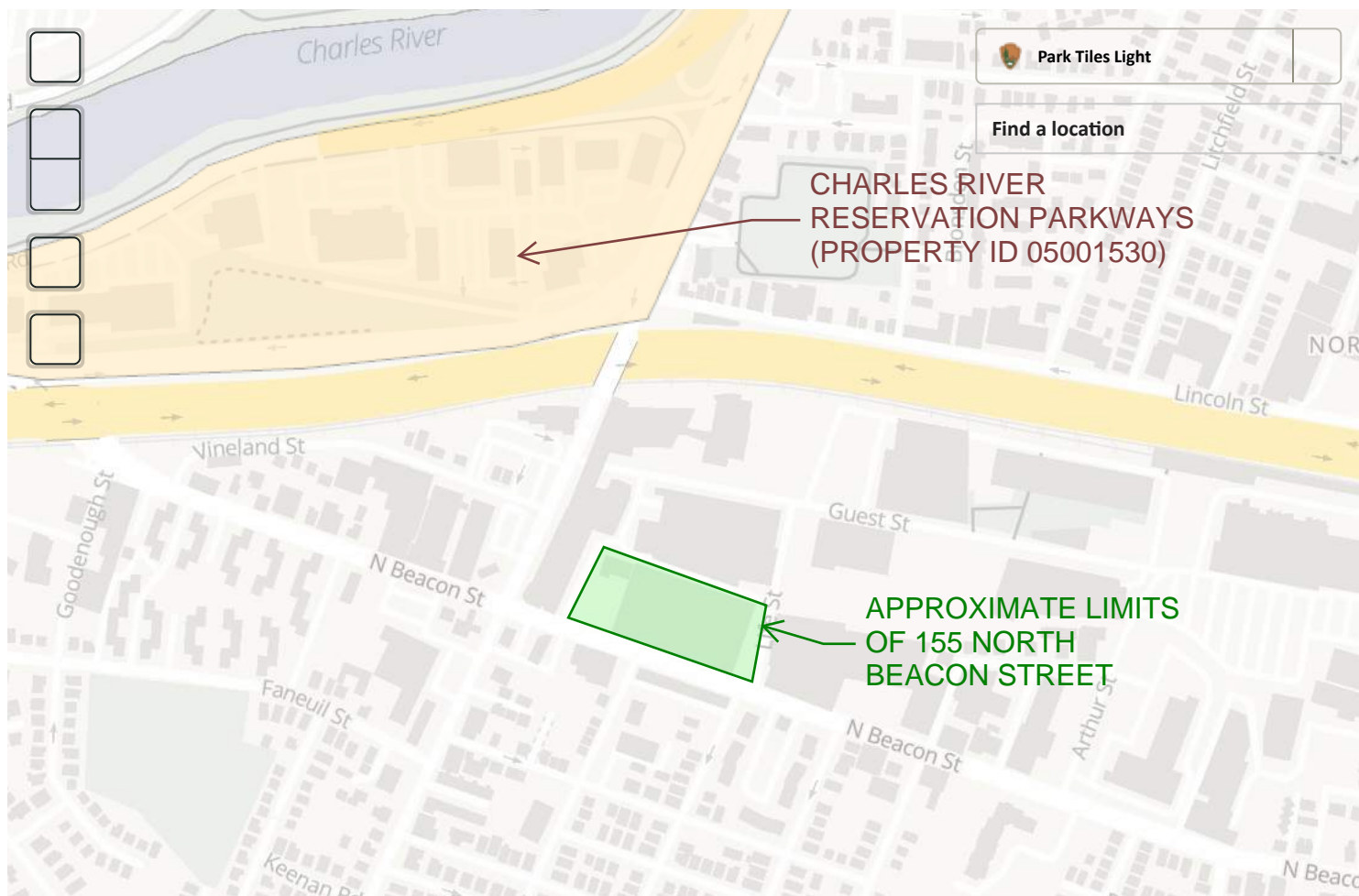
Search Date: 3/23/2022
Search Criteria: Town(s): Boston; Street Name: north beacon;

Inv. No.	Property Name	Street	Town	Year	Designations
BOS.ADJ	International Harvester New England Branch Headquarters		Boston		
BOS.9607	Charles River Reservation - Nonantum Road	Nonantum Rd	Boston	1910	NRDIS; NRMPS;
BOS.9610	Charles River Reservation - North Beacon Street	North Beacon St	Boston	R 1920	NRDIS; NRMPS;
BOS.9611	North Beacon Street Bridge over Charles River	North Beacon St	Boston	R 1920	NRDIS; NRMPS;
BOS.8283		19 North Beacon St	Boston	R 1810	
BOS.17086	Charles River Saab Parts Storage	61 North Beacon St	Boston	1995	
BOS.17085	International Harvester New England Branch Headquarters and Motor Truck Showroom	61 North Beacon St	Boston	1925	
BOS.8679		62 North Beacon St	Boston	R 1890	
BOS.17087	International Harvester New England Branch Headquarters - Service Station	67 North Beacon St	Boston	1924	
BOS.5952	Englewood Diner	69 North Beacon St	Boston	R 1935	NRDOE;
BOS.17088	International Harvester New England Branch Headquarters - Truck Storage Facility	69 North Beacon St	Boston	1925	
BOS.8680	Baldwin, Henry House	78 North Beacon St	Boston	R 1895	
BOS.9621	Dunkin' Donuts Sign	214 North Beacon St	Boston	1957	
BOS.8284	Pig 'N' Whistle Diner	226 North Beacon St	Boston	1938	
BOS.9602	Charles River Reservation - Soldiers Field Road	Soldiers Field Rd	Boston	1899	NRDIS; NRMPS;
BOS.9606	Soldiers Field Road - North Beacon Street Oval	Soldiers Field Rd	Boston	C 1958	NRDIS; NRMPS;
BOS.9603	Soldiers Field Road Planted Median	Soldiers Field Rd	Boston	R 1920	NRDIS; NRMPS;

National Register of Histori...

National Park Service
U.S. Department of the Interior

Public, non-restricted data depicting National Register spatial data proce...



APPENDIX F

Laboratory Data Reports



ANALYTICAL REPORT

Lab Number:	L2205320
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Kyle Block
Phone:	(617) 886-7440
Project Name:	155 NORTH BEACON STREET
Project Number:	0201602-000
Report Date:	02/08/22

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

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2205320-01	HA21-B6A(OW)_20220201	WATER	BOSTON, MA	02/01/22 13:00	02/01/22

Project Name: 155 NORTH BEACON STREET

Lab Number: L2205320

Project Number: 0201602-000

Report Date: 02/08/22

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).	YES
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?	NO
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: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question H:

L2205320-01: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0025)

Average Response Factor: 1,4-dioxane

L2205320-01: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

Semivolatile Organics by SIM

L2205320-01, WG1601866-1, WG1601866-2, and WG1601866-3: The initial calibration utilized a quadratic fit for Pentachlorophenol and Benzo(a)anthracene.

VPH

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

EPH

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

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:



Sebastian Corbin

Title: Technical Director/Representative

Date: 02/08/22

QC OUTLIER SUMMARY REPORT

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC	WG1601035-3	Acetone	LCS	150	70-130	01	potential high bias
8260D	Batch QC	WG1601035-4	Acetone	LCSD	160	70-130	01	potential high bias
MCP Semivolatile Organics - Westborough Lab								
8270E	Batch QC	WG1601865-3	3,3'-Dichlorobenzidine	LCSD	31	20	01	non-directional bias
8270E	Batch QC	WG1601865-3	Aniline	LCSD	18	40-140	01	potential low bias
8270E	Batch QC	WG1601865-3	Aniline	LCSD	94	20	01	non-directional bias
8270E	Batch QC	WG1601865-3	4-Chloroaniline	LCSD	23	20	01	non-directional bias
8270E	Batch QC	WG1601865-3	2,4-Dimethylphenol	LCSD	43	20	01	non-directional bias
MCP Semivolatile Organics by SIM - Westborough Lab								
8270E-SIM	Batch QC	WG1601866-3	Hexachlorobutadiene	LCSD	23	20	01	non-directional bias
8270E-SIM	Batch QC	WG1601866-3	Hexachloroethane	LCSD	23	20	01	non-directional bias

ORGANICS

VOLATILES

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

SAMPLE RESULTS

Lab ID: L2205320-01
Client ID: HA21-B6A(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00
Date Received: 02/01/22
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 02/03/22 06:08
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22**SAMPLE RESULTS**

Lab ID: L2205320-01
Client ID: HA21-B6A(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00
Date Received: 02/01/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

SAMPLE RESULTS

Lab ID: L2205320-01
Client ID: HA21-B6A(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00
Date Received: 02/01/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	113		70-130



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/03/22 04:47
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1601035-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/03/22 04:47
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1601035-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/03/22 04:47
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1601035-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	116		70-130



Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1601035-3 WG1601035-4								
Methylene chloride	100		98		70-130	2		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	97		94		70-130	3		20
Carbon tetrachloride	100		96		70-130	4		20
1,2-Dichloropropane	98		95		70-130	3		20
Dibromochloromethane	85		85		70-130	0		20
1,1,2-Trichloroethane	88		88		70-130	0		20
Tetrachloroethene	97		95		70-130	2		20
Chlorobenzene	92		90		70-130	2		20
Trichlorofluoromethane	100		98		70-130	2		20
1,2-Dichloroethane	88		87		70-130	1		20
1,1,1-Trichloroethane	100		95		70-130	5		20
Bromodichloromethane	92		92		70-130	0		20
trans-1,3-Dichloropropene	86		86		70-130	0		20
cis-1,3-Dichloropropene	94		92		70-130	2		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	77		79		70-130	3		20
1,1,2,2-Tetrachloroethane	82		82		70-130	0		20
Benzene	100		98		70-130	2		20
Toluene	94		92		70-130	2		20
Ethylbenzene	94		92		70-130	2		20
Chloromethane	100		100		70-130	0		20
Bromomethane	89		86		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1601035-3 WG1601035-4								
Vinyl chloride	100		95		70-130	5		20
Chloroethane	95		93		70-130	2		20
1,1-Dichloroethene	100		100		70-130	0		20
trans-1,2-Dichloroethene	100		98		70-130	2		20
Trichloroethene	100		98		70-130	2		20
1,2-Dichlorobenzene	85		88		70-130	3		20
1,3-Dichlorobenzene	88		88		70-130	0		20
1,4-Dichlorobenzene	85		87		70-130	2		20
Methyl tert butyl ether	88		88		70-130	0		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	100		98		70-130	2		20
Dibromomethane	88		86		70-130	2		20
1,2,3-Trichloropropane	78		79		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	90		85		70-130	6		20
Acetone	150	Q	160	Q	70-130	6		20
Carbon disulfide	110		100		70-130	10		20
Methyl ethyl ketone	110		110		70-130	0		20
Methyl isobutyl ketone	81		80		70-130	1		20
2-Hexanone	87		89		70-130	2		20
Bromochloromethane	96		96		70-130	0		20
Tetrahydrofuran	96		93		70-130	3		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1601035-3 WG1601035-4								
2,2-Dichloropropane	97		93		70-130	4		20
1,2-Dibromoethane	87		87		70-130	0		20
1,3-Dichloropropane	90		90		70-130	0		20
1,1,1,2-Tetrachloroethane	86		86		70-130	0		20
Bromobenzene	84		85		70-130	1		20
n-Butylbenzene	93		92		70-130	1		20
sec-Butylbenzene	94		93		70-130	1		20
tert-Butylbenzene	91		91		70-130	0		20
o-Chlorotoluene	88		88		70-130	0		20
p-Chlorotoluene	87		87		70-130	0		20
1,2-Dibromo-3-chloropropane	82		82		70-130	0		20
Hexachlorobutadiene	100		110		70-130	10		20
Isopropylbenzene	91		90		70-130	1		20
p-Isopropyltoluene	94		93		70-130	1		20
Naphthalene	88		88		70-130	0		20
n-Propylbenzene	92		91		70-130	1		20
1,2,3-Trichlorobenzene	92		95		70-130	3		20
1,2,4-Trichlorobenzene	92		93		70-130	1		20
1,3,5-Trimethylbenzene	89		88		70-130	1		20
1,2,4-Trimethylbenzene	87		87		70-130	0		20
Diethyl ether	96		91		70-130	5		20
Diisopropyl Ether	96		94		70-130	2		20
Ethyl-Tert-Butyl-Ether	90		88		70-130	2		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1601035-3 WG1601035-4								
Tertiary-Amyl Methyl Ether	85		84		70-130	1		20
1,4-Dioxane	112		102		70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	90		87		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	102		97		70-130

SEMIVOLATILES

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

SAMPLE RESULTS

Lab ID: L2205320-01
Client ID: HA21-B6A(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00
Date Received: 02/01/22
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 141,8270E
Analytical Date: 02/07/22 11:21
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 02/06/22 07:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
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-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
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Biphenyl	ND		ug/l	0.73	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

SAMPLE RESULTS

Lab ID: L2205320-01
Client ID: HA21-B6A(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00
Date Received: 02/01/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
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
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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		15-110
Phenol-d6	68		15-110
Nitrobenzene-d5	93		30-130
2-Fluorobiphenyl	80		30-130
2,4,6-Tribromophenol	90		15-110
4-Terphenyl-d14	102		30-130

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

SAMPLE RESULTS

Lab ID: L2205320-01
Client ID: HA21-B6A(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00
Date Received: 02/01/22
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 141,8270E-SIM
Analytical Date: 02/06/22 15:52
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/06/22 07:24

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

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22**SAMPLE RESULTS****Lab ID:** L2205320-01**Date Collected:** 02/01/22 13:00**Client ID:** HA21-B6A(OW)_20220201**Date Received:** 02/01/22**Sample Location:** BOSTON, MA**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		15-110
Phenol-d6	64		15-110
Nitrobenzene-d5	94		30-130
2-Fluorobiphenyl	92		30-130
2,4,6-Tribromophenol	105		15-110
4-Terphenyl-d14	98		30-130

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8270E
Analytical Date: 02/07/22 08:20
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 02/06/22 07:22

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG1601865-1					
Acenaphthene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	2.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
2-Chloronaphthalene	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
Fluoranthene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	2.0	--
Hexachloroethane	ND		ug/l	2.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	2.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Benzo(a)anthracene	ND		ug/l	2.0	--
Benzo(a)pyrene	ND		ug/l	2.0	--



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E
Analytical Date: 02/07/22 08:20
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 02/06/22 07:22

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG1601865-1					
Benzo(b)fluoranthene	ND		ug/l	2.0	--
Benzo(k)fluoranthene	ND		ug/l	2.0	--
Chrysene	ND		ug/l	2.0	--
Acenaphthylene	ND		ug/l	2.0	--
Anthracene	ND		ug/l	2.0	--
Benzo(ghi)perylene	ND		ug/l	2.0	--
Fluorene	ND		ug/l	2.0	--
Phenanthrene	ND		ug/l	2.0	--
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	--
Pyrene	ND		ug/l	2.0	--
Biphenyl	ND		ug/l	0.73	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
2-Methylnaphthalene	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
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	--
Pentachlorophenol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E
 Analytical Date: 02/07/22 08:20
 Analyst: WR

Extraction Method: EPA 3510C
 Extraction Date: 02/06/22 07:22

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG1601865-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		15-110
Phenol-d6	48		15-110
Nitrobenzene-d5	79		30-130
2-Fluorobiphenyl	67		30-130
2,4,6-Tribromophenol	64		15-110
4-Terphenyl-d14	92		30-130

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8270E-SIM
 Analytical Date: 02/06/22 15:33
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 02/06/22 07:24

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG1601866-1					
Acenaphthene	ND		ug/l	0.10	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.10	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.10	--
Benzo(a)anthracene	ND		ug/l	0.10	--
Benzo(a)pyrene	ND		ug/l	0.10	--
Benzo(b)fluoranthene	ND		ug/l	0.10	--
Benzo(k)fluoranthene	ND		ug/l	0.10	--
Chrysene	ND		ug/l	0.10	--
Acenaphthylene	ND		ug/l	0.10	--
Anthracene	ND		ug/l	0.10	--
Benzo(ghi)perylene	ND		ug/l	0.10	--
Fluorene	ND		ug/l	0.10	--
Phenanthrene	ND		ug/l	0.10	--
Dibenzo(a,h)anthracene	ND		ug/l	0.10	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	--
Pyrene	ND		ug/l	0.10	--
2-Methylnaphthalene	ND		ug/l	0.10	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E-SIM
 Analytical Date: 02/06/22 15:33
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 02/06/22 07:24

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG1601866-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		15-110
Phenol-d6	46		15-110
Nitrobenzene-d5	77		30-130
2-Fluorobiphenyl	74		30-130
2,4,6-Tribromophenol	75		15-110
4-Terphenyl-d14	87		30-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1601865-2 WG1601865-3								
Acenaphthene	83		92		40-140	10		20
1,2,4-Trichlorobenzene	74		78		40-140	5		20
Hexachlorobenzene	90		89		40-140	1		20
Bis(2-chloroethyl)ether	88		88		40-140	0		20
2-Chloronaphthalene	81		82		40-140	1		20
1,2-Dichlorobenzene	82		80		40-140	2		20
1,3-Dichlorobenzene	71		71		40-140	0		20
1,4-Dichlorobenzene	72		74		40-140	3		20
3,3'-Dichlorobenzidine	67		49		40-140	31	Q	20
2,4-Dinitrotoluene	88		89		40-140	1		20
2,6-Dinitrotoluene	76		76		40-140	0		20
Azobenzene	100		104		40-140	4		20
Fluoranthene	90		92		40-140	2		20
4-Bromophenyl phenyl ether	92		83		40-140	10		20
Bis(2-chloroisopropyl)ether	83		81		40-140	2		20
Bis(2-chloroethoxy)methane	91		86		40-140	6		20
Hexachlorobutadiene	79		75		40-140	5		20
Hexachloroethane	78		76		40-140	3		20
Isophorone	88		84		40-140	5		20
Naphthalene	84		86		40-140	2		20
Nitrobenzene	97		91		40-140	6		20
Bis(2-ethylhexyl)phthalate	97		93		40-140	4		20
Butyl benzyl phthalate	96		97		40-140	1		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1601865-2 WG1601865-3								
Di-n-butylphthalate	94		97		40-140	3		20
Di-n-octylphthalate	95		92		40-140	3		20
Diethyl phthalate	93		95		40-140	2		20
Dimethyl phthalate	80		84		40-140	5		20
Benzo(a)anthracene	92		92		40-140	0		20
Benzo(a)pyrene	90		89		40-140	1		20
Benzo(b)fluoranthene	94		97		40-140	3		20
Benzo(k)fluoranthene	97		91		40-140	6		20
Chrysene	90		90		40-140	0		20
Acenaphthylene	78		83		40-140	6		20
Anthracene	93		95		40-140	2		20
Benzo(ghi)perylene	103		100		40-140	3		20
Fluorene	93		93		40-140	0		20
Phenanthrene	89		93		40-140	4		20
Dibenzo(a,h)anthracene	99		102		40-140	3		20
Indeno(1,2,3-cd)pyrene	101		101		40-140	0		20
Pyrene	90		94		40-140	4		20
Biphenyl	85		88		40-140	3		20
Aniline	50		18	Q	40-140	94	Q	20
4-Chloroaniline	101		80		40-140	23	Q	20
Dibenzofuran	92		88		40-140	4		20
2-Methylnaphthalene	82		83		40-140	1		20
Acetophenone	91		97		40-140	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1601865-2 WG1601865-3								
2,4,6-Trichlorophenol	87		88		30-130	1		20
2-Chlorophenol	94		92		30-130	2		20
2,4-Dichlorophenol	94		90		30-130	4		20
2,4-Dimethylphenol	96		62		30-130	43	Q	20
2-Nitrophenol	87		85		30-130	2		20
4-Nitrophenol	97		99		30-130	2		20
2,4-Dinitrophenol	75		79		30-130	5		20
Pentachlorophenol	91		85		30-130	7		20
Phenol	74		69		30-130	7		20
2-Methylphenol	95		94		30-130	1		20
3-Methylphenol/4-Methylphenol	102		96		30-130	6		20
2,4,5-Trichlorophenol	88		86		30-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	81		79		15-110
Phenol-d6	69		65		15-110
Nitrobenzene-d5	85		86		30-130
2-Fluorobiphenyl	75		77		30-130
2,4,6-Tribromophenol	91		91		15-110
4-Terphenyl-d14	92		90		30-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG1601866-2 WG1601866-3								
Acenaphthene	76		87		40-140	13		20
2-Chloronaphthalene	76		88		40-140	15		20
Fluoranthene	81		87		40-140	7		20
Hexachlorobutadiene	62		78		40-140	23	Q	20
Naphthalene	70		83		40-140	17		20
Benzo(a)anthracene	80		87		40-140	8		20
Benzo(a)pyrene	73		79		40-140	8		20
Benzo(b)fluoranthene	86		92		40-140	7		20
Benzo(k)fluoranthene	79		83		40-140	5		20
Chrysene	75		79		40-140	5		20
Acenaphthylene	74		87		40-140	16		20
Anthracene	78		86		40-140	10		20
Benzo(ghi)perylene	76		83		40-140	9		20
Fluorene	81		90		40-140	11		20
Phenanthrene	76		82		40-140	8		20
Dibenzo(a,h)anthracene	82		90		40-140	9		20
Indeno(1,2,3-cd)pyrene	74		82		40-140	10		20
Pyrene	80		88		40-140	10		20
2-Methylnaphthalene	74		88		40-140	17		20
Pentachlorophenol	94		112		30-130	17		20
Hexachlorobenzene	75		84		40-140	11		20
Hexachloroethane	57		72		40-140	23	Q	20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205320**Report Date:** 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG1601866-2 WG1601866-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		70		15-110
Phenol-d6	51		60		15-110
Nitrobenzene-d5	75		88		30-130
2-Fluorobiphenyl	72		84		30-130
2,4,6-Tribromophenol	81		91		15-110
4-Terphenyl-d14	84		88		30-130

PETROLEUM HYDROCARBONS

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22**SAMPLE RESULTS**

Lab ID: L2205320-01
 Client ID: HA21-B6A(OW)_20220201
 Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00
 Date Received: 02/01/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 131, VPH-18-2.1
 Analytical Date: 02/03/22 05:36
 Analyst: BAD

Trap: EST, Carbopack B/Carboxen 1000&1001**Analytical Column:** Restek, RTX-502.2, 105m, 0.53ID, 3um**Quality Control Information**

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved
Container

Sample Temperature upon receipt:

Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	ND		ug/l	100	--	1
C9-C12 Aliphatics	ND		ug/l	100	--	1
C9-C10 Aromatics	ND		ug/l	100	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	76		70-130
2,5-Dibromotoluene-FID	81		70-130



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22**SAMPLE RESULTS**

Lab ID: L2205320-01

Client ID: HA21-B6A(OW)_20220201

Sample Location: BOSTON, MA

Date Collected: 02/01/22 13:00

Date Received: 02/01/22

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 135,EPH-19-2.1

Analytical Date: 02/07/22 17:50

Analyst: MEO

Extraction Method: EPA 3510C

Extraction Date: 02/06/22 07:49

Cleanup Method1: EPH-19-2.1

Cleanup Date1: 02/07/22

Quality Control Information

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved
Container

Sample Temperature upon receipt:

Received on Ice

Sample Extraction method:

Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	67		40-140
o-Terphenyl	67		40-140
2-Fluorobiphenyl	120		40-140
2-Bromonaphthalene	119		40-140



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 131, VPH-18-2.1
 Analytical Date: 02/02/22 18:08
 Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1601146-4					
C5-C8 Aliphatics	ND		ug/l	100	--
C9-C12 Aliphatics	ND		ug/l	100	--
C9-C10 Aromatics	ND		ug/l	100	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	84		70-130
2,5-Dibromotoluene-FID	87		70-130



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 135,EPH-19-2.1
Analytical Date: 02/07/22 17:25
Analyst: MEO

Extraction Method: EPA 3510C
Extraction Date: 02/06/22 07:49
Cleanup Method: EPH-19-2.1
Cleanup Date: 02/07/22

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1601874-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	77		40-140
o-Terphenyl	53		40-140
2-Fluorobiphenyl	83		40-140
2-Bromonaphthalene	82		40-140

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1601146-2 WG1601146-3								
C5-C8 Aliphatics	105		104		70-130	1		25
C9-C12 Aliphatics	111		110		70-130	1		25
C9-C10 Aromatics	102		101		70-130	1		25
Benzene	103		103		70-130	0		25
Toluene	103		103		70-130	0		25
Ethylbenzene	105		105		70-130	0		25
p/m-Xylene	105		105		70-130	0		25
o-Xylene	105		105		70-130	0		25
Methyl tert butyl ether	107		108		70-130	1		25
Naphthalene	105		106		70-130	1		25
1,2,4-Trimethylbenzene	102		101		70-130	1		25
Pentane	98		97		70-130	1		25
2-Methylpentane	107		106		70-130	1		25
2,2,4-Trimethylpentane	109		108		70-130	1		25
n-Nonane	112		111		30-130	1		25
n-Decane	110		109		70-130	1		25
n-Butylcyclohexane	111		110		70-130	1		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	105		103		70-130
2,5-Dibromotoluene-FID	108		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1601874-2 WG1601874-3								
C9-C18 Aliphatics	64		57		40-140	12		25
C19-C36 Aliphatics	88		83		40-140	6		25
C11-C22 Aromatics	64		69		40-140	8		25
Naphthalene	55		58		40-140	5		25
2-Methylnaphthalene	57		61		40-140	7		25
Acenaphthylene	56		61		40-140	9		25
Acenaphthene	60		65		40-140	8		25
Fluorene	57		62		40-140	8		25
Phenanthrene	60		64		40-140	6		25
Anthracene	58		62		40-140	7		25
Fluoranthene	62		66		40-140	6		25
Pyrene	62		66		40-140	6		25
Benzo(a)anthracene	63		67		40-140	6		25
Chrysene	60		65		40-140	8		25
Benzo(b)fluoranthene	61		65		40-140	6		25
Benzo(k)fluoranthene	59		64		40-140	8		25
Benzo(a)pyrene	61		66		40-140	8		25
Indeno(1,2,3-cd)Pyrene	56		62		40-140	10		25
Dibenzo(a,h)anthracene	58		64		40-140	10		25
Benzo(ghi)perylene	56		63		40-140	12		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205320

Report Date: 02/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1601874-2 WG1601874-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	78		71		40-140
o-Terphenyl	56		59		40-140
2-Fluorobiphenyl	71		94		40-140
2-Bromonaphthalene	70		92		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205320-01A	Vial HCl preserved	A	NA		3.0	Y	Absent		MCP-8260-21(14)
L2205320-01B	Vial HCl preserved	A	NA		3.0	Y	Absent		MCP-8260-21(14)
L2205320-01C	Vial HCl preserved	A	NA		3.0	Y	Absent		MCP-8260-21(14)
L2205320-01D	Vial HCl preserved	A	NA		3.0	Y	Absent		VPH-18(14)
L2205320-01E	Vial HCl preserved	A	NA		3.0	Y	Absent		VPH-18(14)
L2205320-01F	Vial HCl preserved	A	NA		3.0	Y	Absent		VPH-18(14)
L2205320-01G	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		MCP-8270SIM-21-LVI(7),MCP-8270-21-LVI(7)
L2205320-01H	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		MCP-8270SIM-21-LVI(7),MCP-8270-21-LVI(7)
L2205320-01I	Amber 1000ml HCl preserved	A	<2	<2	3.0	Y	Absent		EPH-20(14)
L2205320-01J	Amber 1000ml HCl preserved	A	<2	<2	3.0	Y	Absent		EPH-20(14)

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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.

Report Format: Data Usability Report

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205320**Project Number:** 0201602-000**Report Date:** 02/08/22**Footnotes**

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

Data Qualifiers

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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205320
Report Date: 02/08/22

REFERENCES

- 131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.
- 135 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, December 2019, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, March 1, 2020.
- 141 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 and IIB, November 2021.

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 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625/625.1: alpha-Terpineol

EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D/8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **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 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

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

EPA 522, EPA 537.1.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

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

**Method Blank Summary
Form 4
Volatiles**

Client	: Haley & Aldrich, Inc.	Lab Number	: L2205320
Project Name	: 155 NORTH BEACON STREET	Project Number	: 0201602-000
Lab Sample ID	: WG1601035-5	Lab File ID	: J220203A04
Instrument ID	: JACK1		
Matrix	: WATER	Analysis Date	: 02/03/22 04:47

Client Sample No.	Lab Sample ID	Analysis Date
WG1601035-3LCS	WG1601035-3	02/03/22 03:54
WG1601035-4LCSD	WG1601035-4	02/03/22 04:21
HA21-B6A(OW)_20220201	L2205320-01	02/03/22 06:08

Calibration Verification Summary

Form 7

Volatiles

Client : Haley & Aldrich, Inc.
 Project Name : 155 NORTH BEACON STREET
 Instrument ID : JACK1
 Lab File ID : J220203A02
 Sample No : WG1601035-2
 Channel :

Lab Number : L2205320
 Project Number : 0201602-000
 Calibration Date : 02/03/22 03:54
 Init. Calib. Date(s) : 01/13/22 01/13/22
 Init. Calib. Times : 04:34 09:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	107	0
Dichlorodifluoromethane	0.632	0.566	-	10.4	20	90	0
Chloromethane	0.625	0.66	-	-5.6	20	100	0
Vinyl chloride	0.577	0.59	-	-2.3	20	95	0
Bromomethane	0.288	0.258	-	10.4	20	99	0
Chloroethane	0.354	0.338	-	4.5	20	90	0
Trichlorofluoromethane	0.815	0.852	-	-4.5	20	102	0
Ethyl ether	0.309	0.296	-	4.2	20	96	0
1,1-Dichloroethene	0.476	0.5	-	-5	20	105	-0.01
Carbon disulfide	1.296	1.405	-	-8.4	20	105	-0.01
Freon-113	0.486	0.523	-	-7.6	20	107	-0.01
Methylene chloride	0.559	0.57	-	-2	20	102	0
Acetone	0.159	0.238	-	-49.7*	20	152	0
trans-1,2-Dichloroethene	0.523	0.532	-	-1.7	20	101	0
Methyl acetate	0.425	0.382	-	10.1	20	92	0
Methyl tert-butyl ether	1.549	1.365	-	11.9	20	91	-0.01
tert-Butyl alcohol	0.047	0.035	-	25.5*	20	80	0
Diisopropyl ether	1.9	1.823	-	4.1	20	97	0
1,1-Dichloroethane	1.033	1.054	-	-2	20	99	-0.01
Halothane	0.416	0.425	-	-2.2	20	103	0
Acrylonitrile	0.193	0.188	-	2.6	20	98	-0.01
Ethyl tert-butyl ether	1.685	1.525	-	9.5	20	95	-0.01
Vinyl acetate	1.519	1.265	-	16.7	20	84	-0.01
cis-1,2-Dichloroethene	0.59	0.6	-	-1.7	20	101	0
2,2-Dichloropropane	0.864	0.835	-	3.4	20	98	-0.02
Bromochloromethane	0.282	0.271	-	3.9	20	96	-0.01
Cyclohexane	0.938	1.025	-	-9.3	20	111	-0.01
Chloroform	0.984	0.954	-	3	20	93	0
Ethyl acetate	0.634	0.521	-	17.8	20	87	0
Carbon tetrachloride	0.755	0.755	-	0	20	101	-0.01
Tetrahydrofuran	0.195	0.187	-	4.1	20	101	-0.01
Dibromofluoromethane	0.268	0.274	-	-2.2	20	109	-0.01
1,1,1-Trichloroethane	0.853	0.853	-	0	20	99	-0.01
2-Butanone	0.259	0.282	-	-8.9	20	109	-0.01
1,1-Dichloropropene	0.723	0.751	-	-3.9	20	104	-0.01
Benzene	2.114	2.13	-	-0.8	20	102	-0.01
tert-Amyl methyl ether	1.48	1.255	-	15.2	20	89	-0.01
1,2-Dichloroethane-d4	0.354	0.318	-	10.2	20	97	-0.01
1,2-Dichloroethane	0.777	0.687	-	11.6	20	89	-0.01
Methyl cyclohexane	0.978	0.988	-	-1	20	112	0
Trichloroethene	0.543	0.555	-	-2.2	20	101	-0.01
Dibromomethane	0.358	0.313	-	12.6	20	92	-0.01
1,2-Dichloropropane	0.577	0.567	-	1.7	20	97	-0.02

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Haley & Aldrich, Inc.
 Project Name : 155 NORTH BEACON STREET
 Instrument ID : JACK1
 Lab File ID : J220203A02
 Sample No : WG1601035-2
 Channel :

Lab Number : L2205320
 Project Number : 0201602-000
 Calibration Date : 02/03/22 03:54
 Init. Calib. Date(s) : 01/13/22 01/13/22
 Init. Calib. Times : 04:34 09:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
2-Chloroethyl vinyl ether	0.287	0.278	-	3.1	20	101	0
Bromodichloromethane	0.79	0.727	-	8	20	93	-.01
1,4-Dioxane	0.00252	0.00281*	-	-11.5	20	118	-.02
cis-1,3-Dichloropropene	0.925	0.874	-	5.5	20	94	0
Chlorobenzene-d5	1	1	-	0	20	110	-.01
Toluene-d8	1.243	1.21	-	2.7	20	107	-.02
Toluene	1.623	1.532	-	5.6	20	100	-.01
4-Methyl-2-pentanone	0.251	0.204	-	18.7	20	88	0
Tetrachloroethene	0.725	0.701	-	3.3	20	106	0
trans-1,3-Dichloropropene	1.003	0.864	-	13.9	20	91	-.01
Ethyl methacrylate	0.89	0.707	-	20.6*	20	83	0
1,1,2-Trichloroethane	0.473	0.416	-	12.1	20	93	0
Chlorodibromomethane	0.696	0.59	-	15.2	20	94	-.01
1,3-Dichloropropane	0.979	0.886	-	9.5	20	98	0
1,2-Dibromoethane	0.596	0.518	-	13.1	20	95	-.02
2-Hexanone	0.526	0.458	-	12.9	20	91	0
Chlorobenzene	1.895	1.745	-	7.9	20	99	-.01
Ethylbenzene	3.216	3.011	-	6.4	20	98	0
1,1,1,2-Tetrachloroethane	0.678	0.582	-	14.2	20	96	-.01
p/m Xylene	1.28	1.189	-	7.1	20	100	-.01
o Xylene	1.252	1.119	-	10.6	20	95	-.01
Styrene	2.143	1.94	-	9.5	20	97	-.01
1,4-Dichlorobenzene-d4	1	1	-	0	20	117	0
Bromoform	0.838	0.644	-	23.2*	20	94	-.01
Isopropylbenzene	6.16	5.605	-	9	20	101	0
4-Bromofluorobenzene	0.905	0.875	-	3.3	20	108	-.01
Bromobenzene	1.551	1.302	-	16.1	20	97	-.01
n-Propylbenzene	7.242	6.658	-	8.1	20	102	0
1,4-Dichlorobutane	2.039	1.63	-	20.1*	20	92	0
1,1,2,2-Tetrachloroethane	1.342	1.101	-	18	20	94	0
4-Ethyltoluene	5.954	5.395	-	9.4	20	101	-.01
2-Chlorotoluene	4.879	4.311	-	11.6	20	98	0
1,3,5-Trimethylbenzene	5.007	4.438	-	11.4	20	100	0
1,2,3-Trichloropropane	1.169	0.919	-	21.4*	20	93	-.01
trans-1,4-Dichloro-2-buten	0.501	0.322	-	35.7*	20	75	0
4-Chlorotoluene	4.485	3.918	-	12.6	20	98	0
tert-Butylbenzene	4.409	4.011	-	9	20	102	0
1,2,4-Trimethylbenzene	4.994	4.341	-	13.1	20	99	-.01
sec-Butylbenzene	6.573	6.153	-	6.4	20	105	0
p-Isopropyltoluene	5.554	5.208	-	6.2	20	106	0
1,3-Dichlorobenzene	2.932	2.587	-	11.8	20	100	0
1,4-Dichlorobenzene	2.926	2.492	-	14.8	20	98	0
p-Diethylbenzene	3.258	2.991	-	8.2	20	104	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Haley & Aldrich, Inc.
 Project Name : 155 NORTH BEACON STREET
 Instrument ID : JACK1
 Lab File ID : J220203A02
 Sample No : WG1601035-2
 Channel :

Lab Number : L2205320
 Project Number : 0201602-000
 Calibration Date : 02/03/22 03:54
 Init. Calib. Date(s) : 01/13/22 01/13/22
 Init. Calib. Times : 04:34 09:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	4.692	4.351	-	7.3	20	105	0
1,2-Dichlorobenzene	2.728	2.327	-	14.7	20	97	0
1,2,4,5-Tetramethylbenzene	4.839	4.18	-	13.6	20	100	0
1,2-Dibromo-3-chloropropan	0.258	0.211	-	18.2	20	97	-.01
1,3,5-Trichlorobenzene	1.931	1.792	-	7.2	20	106	0
Hexachlorobutadiene	0.69	0.729	-	-5.7	20	122	0
1,2,4-Trichlorobenzene	1.62	1.483	-	8.5	20	103	0
Naphthalene	4.489	3.936	-	12.3	20	102	0
1,2,3-Trichlorobenzene	1.441	1.334	-	7.4	20	104	0

* Value outside of QC limits.





ANALYTICAL REPORT

Lab Number:	L2205323
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Kyle Block
Phone:	(617) 886-7440
Project Name:	155 NORTH BEACON STREET
Project Number:	0201602-000
Report Date:	02/09/22

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

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2205323-01	HA21-B1(OW)_20220201	WATER	BOSTON, MA	02/01/22 14:30	02/01/22

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Case Narrative (continued)

Report Submission

February 09, 2022: This final report includes the results of all requested analyses.

February 08, 2022: This is a preliminary report.

The analysis of Ethanol was subcontracted. A copy of the laboratory report is included as an addendum.
Please note: This data is only available in PDF format and is not available on Data Merger.

Total Metals

The WG1600637-4 Laboratory Duplicate RPD for iron (23%), performed on L2205323-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

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

Authorized Signature:

Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative

Date: 02/09/22

ORGANICS

VOLATILES

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205323**Project Number:** 0201602-000**Report Date:** 02/09/22**SAMPLE RESULTS**

Lab ID: L2205323-01

Date Collected: 02/01/22 14:30

Client ID: HA21-B1(OW)_20220201

Date Received: 02/01/22

Sample Location: BOSTON, MA

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Analytical Method: 128,624.1

Analytical Date: 02/02/22 10:16

Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Methyl tert butyl ether	ND		ug/l	10	--	1
Tert-Butyl Alcohol	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	1



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205323**Project Number:** 0201602-000**Report Date:** 02/09/22**SAMPLE RESULTS**

Lab ID: L2205323-01

Date Collected: 02/01/22 14:30

Client ID: HA21-B1(OW)_20220201

Date Received: 02/01/22

Sample Location: BOSTON, MA

Field Prep: Refer to COC

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	100		60-140
Fluorobenzene	94		60-140
4-Bromofluorobenzene	107		60-140

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

SAMPLE RESULTS

Lab ID: L2205323-01
Client ID: HA21-B1(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 14:30
Date Received: 02/01/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 128,624.1-SIM
Analytical Date: 02/02/22 10:16
Analyst: GT

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

1,4-Dioxane	ND		ug/l	5.0	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	99		60-140
4-Bromofluorobenzene	98		60-140

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

SAMPLE RESULTS

Lab ID: L2205323-01
Client ID: HA21-B1(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 14:30
Date Received: 02/01/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 02/03/22 17:28
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 02/03/22 16:10

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: 155 NORTH BEACON STREET**Lab Number:** L2205323**Project Number:** 0201602-000**Report Date:** 02/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 128,624.1
 Analytical Date: 02/02/22 05:15
 Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1600666-4					
Methylene chloride	ND		ug/l	1.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
Tetrachloroethene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 02/02/22 05:15
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1600666-4					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	102		60-140
Fluorobenzene	93		60-140
4-Bromofluorobenzene	115		60-140

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205323**Project Number:** 0201602-000**Report Date:** 02/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 128,624.1-SIM

Analytical Date: 02/02/22 05:15

Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1600676-4					
1,4-Dioxane	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	101		60-140
4-Bromofluorobenzene	106		60-140

Project Name: 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22**Method Blank Analysis**
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 02/03/22 16:56
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 02/03/22 16:10

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG1601234-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205323

Report Date: 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1600666-3								
Methylene chloride	95		-		60-140	-		28
1,1-Dichloroethane	90		-		50-150	-		49
Carbon tetrachloride	110		-		70-130	-		41
1,1,2-Trichloroethane	105		-		70-130	-		45
Tetrachloroethene	120		-		70-130	-		39
1,2-Dichloroethane	105		-		70-130	-		49
1,1,1-Trichloroethane	115		-		70-130	-		36
Benzene	100		-		65-135	-		61
Toluene	110		-		70-130	-		41
Ethylbenzene	130		-		60-140	-		63
Vinyl chloride	80		-		5-195	-		66
1,1-Dichloroethene	100		-		50-150	-		32
cis-1,2-Dichloroethene	95		-		60-140	-		30
Trichloroethene	105		-		65-135	-		48
1,2-Dichlorobenzene	130		-		65-135	-		57
1,3-Dichlorobenzene	125		-		70-130	-		43
1,4-Dichlorobenzene	135		-		65-135	-		57
p/m-Xylene	122		-		60-140	-		30
o-xylene	115		-		60-140	-		30
Acetone	72		-		40-160	-		30
Methyl tert butyl ether	85		-		60-140	-		30
Tert-Butyl Alcohol	82		-		60-140	-		30
Tertiary-Amyl Methyl Ether	80		-		60-140	-		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1600666-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	103				60-140
Fluorobenzene	98				60-140
4-Bromofluorobenzene	114				60-140

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1600676-3								
1,4-Dioxane	112		-		60-140	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Fluorobenzene	105				60-140
4-Bromofluorobenzene	101				60-140

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG1601234-2									
1,2-Dibromoethane	85		-		80-120	-			A

Matrix Spike Analysis*Batch Quality Control***Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1601234-3 QC Sample: L2205220-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.248	0.210	85		-	-		80-120	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.248	0.220	89		-	-		80-120	-		20	A
1,2,3-Trichloropropane	ND	0.248	0.242	98		-	-		80-120	-		20	A

SEMIVOLATILES

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

SAMPLE RESULTS

Lab ID: L2205323-01
Client ID: HA21-B1(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 14:30
Date Received: 02/01/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 02/07/22 00:40
Analyst: WR

Extraction Method: EPA 625.1
Extraction Date: 02/05/22 21:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--	1
Butyl benzyl phthalate	ND		ug/l	5.00	--	1
Di-n-butylphthalate	ND		ug/l	5.00	--	1
Di-n-octylphthalate	ND		ug/l	5.00	--	1
Diethyl phthalate	ND		ug/l	5.00	--	1
Dimethyl phthalate	ND		ug/l	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	79		42-122
2-Fluorobiphenyl	79		46-121
4-Terphenyl-d14	82		47-138

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

SAMPLE RESULTS

Lab ID: L2205323-01
Client ID: HA21-B1(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 14:30
Date Received: 02/01/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 02/06/22 14:36
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 02/05/22 21:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.100	--	1
Fluoranthene	ND		ug/l	0.100	--	1
Naphthalene	ND		ug/l	0.100	--	1
Benzo(a)anthracene	ND		ug/l	0.100	--	1
Benzo(a)pyrene	ND		ug/l	0.100	--	1
Benzo(b)fluoranthene	ND		ug/l	0.100	--	1
Benzo(k)fluoranthene	ND		ug/l	0.100	--	1
Chrysene	ND		ug/l	0.100	--	1
Acenaphthylene	ND		ug/l	0.100	--	1
Anthracene	ND		ug/l	0.100	--	1
Benzo(ghi)perylene	ND		ug/l	0.100	--	1
Fluorene	ND		ug/l	0.100	--	1
Phenanthrene	ND		ug/l	0.100	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--	1
Pyrene	ND		ug/l	0.100	--	1
Pentachlorophenol	ND		ug/l	1.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		25-87
Phenol-d6	38		16-65
Nitrobenzene-d5	85		42-122
2-Fluorobiphenyl	74		46-121
2,4,6-Tribromophenol	101		45-128
4-Terphenyl-d14	86		47-138



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
 Analytical Date: 02/06/22 23:54
 Analyst: WR

Extraction Method: EPA 625.1
 Extraction Date: 02/05/22 21:51

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1601836-1					
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--
Butyl benzyl phthalate	ND		ug/l	5.00	--
Di-n-butylphthalate	ND		ug/l	5.00	--
Di-n-octylphthalate	ND		ug/l	5.00	--
Diethyl phthalate	ND		ug/l	5.00	--
Dimethyl phthalate	ND		ug/l	5.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	69		42-122
2-Fluorobiphenyl	70		46-121
4-Terphenyl-d14	69		47-138



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 02/06/22 14:20
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 02/05/22 21:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1601837-1					
Acenaphthene	ND		ug/l	0.100	--
Fluoranthene	ND		ug/l	0.100	--
Naphthalene	ND		ug/l	0.100	--
Benzo(a)anthracene	ND		ug/l	0.100	--
Benzo(a)pyrene	ND		ug/l	0.100	--
Benzo(b)fluoranthene	ND		ug/l	0.100	--
Benzo(k)fluoranthene	ND		ug/l	0.100	--
Chrysene	ND		ug/l	0.100	--
Acenaphthylene	ND		ug/l	0.100	--
Anthracene	ND		ug/l	0.100	--
Benzo(ghi)perylene	ND		ug/l	0.100	--
Fluorene	ND		ug/l	0.100	--
Phenanthrene	ND		ug/l	0.100	--
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--
Pyrene	ND		ug/l	0.100	--
Pentachlorophenol	ND		ug/l	1.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-87
Phenol-d6	41		16-65
Nitrobenzene-d5	90		42-122
2-Fluorobiphenyl	78		46-121
2,4,6-Tribromophenol	99		45-128
4-Terphenyl-d14	81		47-138



Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1601836-2								
Bis(2-ethylhexyl)phthalate	109		-		29-137	-		82
Butyl benzyl phthalate	101		-		1-140	-		60
Di-n-butylphthalate	99		-		8-120	-		47
Di-n-octylphthalate	106		-		19-132	-		69
Diethyl phthalate	95		-		1-120	-		100
Dimethyl phthalate	96		-		1-120	-		183

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	93				42-122
2-Fluorobiphenyl	90				46-121
4-Terphenyl-d14	91				47-138

Lab Control Sample Analysis Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205323

Report Date: 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1601837-2								
Acenaphthene	79		-		60-132	-		30
Fluoranthene	90		-		43-121	-		30
Naphthalene	77		-		36-120	-		30
Benzo(a)anthracene	97		-		42-133	-		30
Benzo(a)pyrene	95		-		32-148	-		30
Benzo(b)fluoranthene	95		-		42-140	-		30
Benzo(k)fluoranthene	92		-		25-146	-		30
Chrysene	81		-		44-140	-		30
Acenaphthylene	88		-		54-126	-		30
Anthracene	85		-		43-120	-		30
Benzo(ghi)perylene	94		-		1-195	-		30
Fluorene	85		-		70-120	-		30
Phenanthrene	79		-		65-120	-		30
Dibenzo(a,h)anthracene	104		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	100		-		1-151	-		30
Pyrene	90		-		70-120	-		30
Pentachlorophenol	90		-		38-152	-		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1601837-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	61				25-87
Phenol-d6	43				16-65
Nitrobenzene-d5	89				42-122
2-Fluorobiphenyl	79				46-121
2,4,6-Tribromophenol	105				45-128
4-Terphenyl-d14	89				47-138

PCBS

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

SAMPLE RESULTS

Lab ID: L2205323-01
Client ID: HA21-B1(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 14:30
Date Received: 02/01/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 02/07/22 10:12
Analyst: AWS

Extraction Method: EPA 608.3
Extraction Date: 02/06/22 07:30
Cleanup Method: EPA 3665A
Cleanup Date: 02/06/22
Cleanup Method: EPA 3660B
Cleanup Date: 02/07/22

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	70		37-123	B
Decachlorobiphenyl	80		38-114	B
2,4,5,6-Tetrachloro-m-xylene	67		37-123	A
Decachlorobiphenyl	75		38-114	A



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 127,608.3
 Analytical Date: 02/06/22 11:03
 Analyst: JAW

Extraction Method: EPA 608.3
 Extraction Date: 02/05/22 07:50
 Cleanup Method: EPA 3665A
 Cleanup Date: 02/05/22
 Cleanup Method: EPA 3660B
 Cleanup Date: 02/05/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1601748-1						
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	48		37-123	B
Decachlorobiphenyl	71		38-114	B
2,4,5,6-Tetrachloro-m-xylene	47		37-123	A
Decachlorobiphenyl	66		38-114	A



Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1601748-2									
Aroclor 1016	88		-		50-140	-		36	A
Aroclor 1260	93		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58				37-123	B
Decachlorobiphenyl	79				38-114	B
2,4,5,6-Tetrachloro-m-xylene	58				37-123	A
Decachlorobiphenyl	73				38-114	A

METALS

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205323**Project Number:** 0201602-000**Report Date:** 02/09/22**SAMPLE RESULTS**

Lab ID: L2205323-01

Date Collected: 02/01/22 14:30

Client ID: HA21-B1(OW)_20220201

Date Received: 02/01/22

Sample Location: BOSTON, MA

Field Prep: Refer to COC

Sample Depth:

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	0.00400	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Arsenic, Total	ND		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Chromium, Total	0.00147		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Copper, Total	ND		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Iron, Total	0.256		mg/l	0.050	--	1	02/02/22 16:16	02/02/22 23:38	EPA 3005A	19,200.7	DL
Lead, Total	ND		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Mercury, Total	ND		mg/l	0.00020	--	1	02/02/22 17:17	02/04/22 10:17	EPA 245.1	3,245.1	ZK
Nickel, Total	0.00398		mg/l	0.00200	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Silver, Total	0.00059		mg/l	0.00040	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Zinc, Total	ND		mg/l	0.01000	--	1	02/02/22 16:16	02/02/22 20:51	EPA 3005A	3,200.8	SV
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	1380		mg/l	0.660	NA	1	02/02/22 16:16	02/02/22 23:38	EPA 3005A	19,200.7	DL

General Chemistry - Mansfield Lab

Chromium, Trivalent	ND		mg/l	0.010	--	1	02/02/22 20:51	NA	107,-
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Project Name: 155 NORTH BEACON STREET

Lab Number: L2205323

Project Number: 0201602-000

Report Date: 02/09/22

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: WG1600637-1										
Iron, Total	ND		mg/l	0.050	--	1	02/02/22 16:16	02/02/22 23:13	19,200.7	DL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01 Batch: WG1600637-1										
Hardness	ND		mg/l	0.660	NA	1	02/02/22 16:16	02/02/22 23:13	19,200.7	DL

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: WG1600638-1										
Antimony, Total	ND		mg/l	0.00400	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Arsenic, Total	ND		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Chromium, Total	ND		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Copper, Total	ND		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Lead, Total	ND		mg/l	0.00100	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Nickel, Total	ND		mg/l	0.00200	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV
Zinc, Total	ND		mg/l	0.01000	--	1	02/02/22 16:16	02/02/22 20:24	3,200.8	SV

Prep Information

Digestion Method: EPA 3005A



Project Name: 155 NORTH BEACON STREET

Lab Number: L2205323

Project Number: 0201602-000

Report Date: 02/09/22

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: WG1600639-1										
Mercury, Total	ND		mg/l	0.00020	--	1	02/02/22 17:17	02/04/22 09:57	3,245.1	ZK

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205323

Report Date: 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1600637-2								
Iron, Total	97		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 Batch: WG1600637-2								
Hardness	102		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1600638-2								
Antimony, Total	85		-		85-115	-		
Arsenic, Total	99		-		85-115	-		
Cadmium, Total	97		-		85-115	-		
Chromium, Total	92		-		85-115	-		
Copper, Total	94		-		85-115	-		
Lead, Total	94		-		85-115	-		
Nickel, Total	89		-		85-115	-		
Selenium, Total	102		-		85-115	-		
Silver, Total	100		-		85-115	-		
Zinc, Total	95		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1600639-2								
Mercury, Total	103		-		85-115	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

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: WG1600637-3 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201												
Iron, Total	0.256	1	1.13	87		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1600637-3 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201												
Hardness	1380	66.2	1450	106		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1600638-3 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201												
Antimony, Total	ND	0.5	0.5381	108		-	-		70-130	-		20
Arsenic, Total	ND	0.12	0.1225	102		-	-		70-130	-		20
Cadmium, Total	ND	0.053	0.05123	97		-	-		70-130	-		20
Chromium, Total	0.00147	0.2	0.1812	90		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2280	91		-	-		70-130	-		20
Lead, Total	ND	0.53	0.5122	97		-	-		70-130	-		20
Nickel, Total	0.00398	0.5	0.4345	86		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1196	100		-	-		70-130	-		20
Silver, Total	0.00059	0.05	0.05046	100		-	-		70-130	-		20
Zinc, Total	ND	0.5	0.4631	93		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1600639-3 QC Sample: L2205252-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00493	99		-	-		70-130	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205323

Report Date: 02/09/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1600637-4 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201						
Iron, Total	0.256	0.203	mg/l	23	Q	20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1600637-4 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201						
Hardness	1380	1360	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1600638-4 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.00147	0.00142	mg/l	4		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	0.00398	0.00368	mg/l	8		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	0.00059	0.00058	mg/l	1		20
Zinc, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1600639-4 QC Sample: L2205252-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

SAMPLE RESULTS

Lab ID: L2205323-01
Client ID: HA21-B1(OW)_20220201
Sample Location: BOSTON, MA

Date Collected: 02/01/22 14:30
Date Received: 02/01/22
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	02/02/22 19:00	121,2540D	MD
Cyanide, Total	ND		mg/l	0.005	--	1	02/02/22 04:50	02/02/22 10:39	121,4500CN-CE	CS
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/01/22 21:58	121,4500CL-D	AS
pH (H)	6.7		SU	-	NA	1	-	02/01/22 22:30	121,4500H+-B	AS
Nitrogen, Ammonia	0.402		mg/l	0.075	--	1	02/02/22 10:35	02/02/22 21:20	121,4500NH3-BH	AT
Phenolics, Total	ND		mg/l	0.030	--	1	02/04/22 06:47	02/04/22 11:54	4,420.1	KP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/01/22 21:00	02/01/22 21:41	1,7196A	AS
Anions by Ion Chromatography - Westborough Lab										
Chloride	2090		mg/l	50.0	--	100	-	02/02/22 22:07	44,300.0	AT



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205323**Project Number:** 0201602-000**Report Date:** 02/09/22

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: WG1600395-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/01/22 21:00	02/01/22 21:40	1,7196A	AS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1600396-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/01/22 21:58	121,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1600446-1										
Cyanide, Total	ND		mg/l	0.005	--	1	02/02/22 04:50	02/02/22 10:07	121,4500CN-CE	CS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1600532-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	02/02/22 10:35	02/02/22 20:47	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1600759-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	02/02/22 19:00	121,2540D	MD
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG1600857-1										
Chloride	ND		mg/l	0.500	--	1	-	02/02/22 17:44	44,300.0	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1601417-1										
Phenolics, Total	ND		mg/l	0.030	--	1	02/04/22 06:47	02/04/22 11:51	4,420.1	KP



Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205323

Report Date: 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1600395-2								
Chromium, Hexavalent	104		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1600396-2								
Chlorine, Total Residual	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1600411-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1600446-2								
Cyanide, Total	99		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1600532-2								
Nitrogen, Ammonia	107		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1600759-2								
Solids, Total Suspended	97		-		80-120	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG1600857-2								
Chloride	104		-		90-110	-		

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205323**Report Date:** 02/09/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1601417-2					
Phenolics, Total	91	-	70-130	-	

Matrix Spike Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205323

Report Date: 02/09/22

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: WG1600395-4 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201												
Chromium, Hexavalent	ND	0.1	0.104	104		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600396-4 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201												
Chlorine, Total Residual	ND	0.25	0.27	108		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600446-4 QC Sample: L2205067-02 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.198	99		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600532-4 QC Sample: L2205158-02 Client ID: MS Sample												
Nitrogen, Ammonia	1.68	4	5.58	98		-	-		80-120	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600857-3 QC Sample: L2204258-09 Client ID: MS Sample												
Chloride	161	100	260	99		-	-		90-110	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1601417-4 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201												
Phenolics, Total	ND	0.4	0.37	92		-	-		70-130	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205323

Report Date: 02/09/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600395-3 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600396-3 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600411-2 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201						
pH (H)	6.7	6.6	SU	2		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600446-3 QC Sample: L2205067-01 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600532-3 QC Sample: L2205158-02 Client ID: DUP Sample						
Nitrogen, Ammonia	1.68	1.84	mg/l	9		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600759-3 QC Sample: L2204813-01 Client ID: DUP Sample						
Solids, Total Suspended	140	140	mg/l	0		29
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600857-4 QC Sample: L2204258-09 Client ID: DUP Sample						
Chloride	161	161	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1601417-3 QC Sample: L2205323-01 Client ID: HA21-B1(OW)_20220201						
Phenolics, Total	ND	ND	mg/l	NC		20

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Serial_No: 02092214:32
Lab Number: L2205323
Report Date: 02/09/22

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205323-01A	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		624.1-SIM-RGP(7)
L2205323-01B	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		624.1-SIM-RGP(7)
L2205323-01C	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		624.1-SIM-RGP(7)
L2205323-01D	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		624.1-RGP(7)
L2205323-01E	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		624.1-RGP(7)
L2205323-01F	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		624.1-RGP(7)
L2205323-01G	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		504(14)
L2205323-01H	Vial Na2S2O3 preserved	A	NA		3.0	Y	Absent		504(14)
L2205323-01I	Vial unpreserved	A	NA		3.0	Y	Absent		SUB-ETHANOL(14)
L2205323-01J	Vial unpreserved	A	NA		3.0	Y	Absent		SUB-ETHANOL(14)
L2205323-01K	Vial unpreserved	A	NA		3.0	Y	Absent		SUB-ETHANOL(14)
L2205323-01L	Plastic 250ml HNO3 preserved	A	<2	<2	3.0	Y	Absent		AG-2008S(180),FE-RI(180),CR-2008S(180),HOLD-METAL-DISSOLVED(180),AS-2008S(180),PB-2008S(180),ZN-2008S(180),NI-2008S(180),SE-2008S(180),CU-2008S(180),SB-2008S(180),CD-2008S(180),HG-R(28)
L2205323-01M	Plastic 250ml HNO3 preserved	A	<2	<2	3.0	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),HARDU(180),FE-UI(180),CU-2008T(180),SE-2008T(180),AS-2008T(180),HG-U(28),AG-2008T(180),SB-2008T(180),CR-2008T(180),PB-2008T(180)
L2205323-01N	Plastic 250ml NaOH preserved	A	>12	>12	3.0	Y	Absent		TCN-4500(14)
L2205323-01O	Plastic 500ml H2SO4 preserved	A	<2	<2	3.0	Y	Absent		NH3-4500(28)
L2205323-01P	Plastic 950ml unpreserved	A	7	7	3.0	Y	Absent		CL-300(28),HEXCR-7196(1),TRC-4500(1),PH-4500(.01)
L2205323-01Q	Plastic 950ml unpreserved	A	7	7	3.0	Y	Absent		TSS-2540(7)
L2205323-01R	Amber 950ml H2SO4 preserved	A	<2	<2	3.0	Y	Absent		TPHENOL-420(28)

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Serial_No:02092214:32
Lab Number: L2205323
Report Date: 02/09/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205323-01S	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		PCB-608.3(365)
L2205323-01T	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		PCB-608.3(365)
L2205323-01U	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		625.1-RGP(7)
L2205323-01V	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		625.1-SIM-RGP(7)

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205323**Project Number:** 0201602-000**Report Date:** 02/09/22

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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.

Report Format: Data Usability Report

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Footnotes

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

Data Qualifiers

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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205323
Report Date: 02/09/22

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 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.
- 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.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.
- 128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.
- 129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B


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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **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 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

 CHAIN OF CUSTODY		Service Centers Brewer, ME 04412 Portsmouth, NH 03801 Woburn, MA 01801 Albany, NY 12205 Tonawanda, NY 14150 Holmes, PA 19043		Page 1 1 of 1		Date Rec'd In Lab <u>2/1/22</u>		ALPHA Job # <u>2205323</u>	
Westborough, MA 01581 8 Wellesley Dr. TEL: 508-898-8229 FAX: 508-898-8193		Mansfield, MA 02048 220 Forbes Blvd TEL: 508-822-9000 FAX: 508-822-0288		Project Information Project Name: <u>155 North Beacon St.</u> Project Location: <u>Boston, MA</u> Project # <u>0201802-000</u> (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> EQUS (1 File) <input checked="" type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other:		Billing Information <input type="checkbox"/> Same as Client Info PO #	
H&A Information H&A Client: <u>IQHQ, Inc.</u> H&A Address: <u>465 Medford Street, Suite 2200</u> <u>Boston, MA 02129</u> H&A Phone: <u>617.880.2293</u> H&A Fax: H&A Email: <u>JThibault, TCains, KBlock</u>		Project Manager: <u>K. Block</u> ALPHAQuote #: Turn Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: # of Days: <u>5 Day</u>		Regulatory Requirements (Program/Criteria) <u>MA 2017 NPDES RGP</u> Note: Select State from menu & identify criteria.		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Samples submitted for 2017 NPDES RGP application; please follow approved testing methods and minimum detection levels as required by EPA.		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input checked="" type="checkbox"/> Lab to do (Please Specify below)					
Please specify Metals or TAL: <u>Note well but slow exchange. TPIH glassware not 2 1L Amber with dry SiO2 preservative with no metal</u>		ALPHA Lab ID (Lab Use Only) Sample ID Collection Date Time Sample Matrix Sampler Initials Depth		1. VOCs 824.1 & 824.1-SIM 2. SVOCs 825.1 & 825.1-SIM 3. TSS 2540, TPC 4500, CI 300, TCN 4. PCBs 606, EOB 504, TPHENOL, 825.1-825.1-SIM 5. Ammonia (NH3), Hex Cr, Hardness, pH 6. Ethanol 7. Total NPDES RGP Metals 8. NPDES RGP Metals (Field Filtered) (DN)					
<u>05323-01</u> <u>HA21- B1(ow) - 20220201</u> <u>2/1/22</u> <u>1430</u> <u>AQ</u> <u>GRP</u>		<u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u>		1. 1,4-Dioxane by 824.1-SIM 5. Sub Ethanol 7. NPDES RGP Metals Includes: Ag, As, Cd, Cr, Tri C Cu, Ni, Pb, Sb, Se, Zn, Fe, Hg 8. Field Filtered NPDES RGP Metals (DN HOLD)					
<u>HA21-</u> <u>AQ</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u>		<u>Receiving Water</u> <u>AQ</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u>							
Preservative Code: A = None B = HCl C = HNO3 D = H2SO4 E = NaOH F = MeOH G = NaHSO4 H = Na2S2O5 K/E = Zn AcNaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Eneone D = BCO Bottle		Westboro: Certification No: MA035 Mansfield: Certification No: MA015 Container Type Preservative					
Relinquished By: <u>J.P. Paul</u> <u>W. Thibault</u> <u>W. Thibault</u>		Date/Time <u>2/1/22 1430</u> <u>2/1/22 1630</u> <u>2/1/22 1750</u>		Received By: <u>W. Thibault</u> <u>W. Thibault</u> <u>W. Thibault</u>					
Date/Time <u>2/1/22 1430</u> <u>2/1/22 1630</u> <u>2/1/22 1750</u>		Date/Time <u>2/1/22 1430</u> <u>2/1/22 1630</u> <u>2/1/22 1750</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. Alpha Analytical's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement# 2019-22-Alpha Analytical by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Alpha Analytical.					

		Subcontract Chain of Custody Tek Lab, Inc. 5445 Horseshoe Lake Road Collinsville, IL 62234-7425		Alpha Job Number L2205323	
Client Information		Project Information		Regulatory Requirements/Report Limits	
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 503.319.5010 Email: mgulli@alphalab.com		Project Location: MA Project Manager: Melissa Gulli Turnaround & Deliverables Information Due Date: Deliverables:		State/Federal Program: Regulatory Criteria: RCS-1-19	
Project Specific Requirements and/or Report Requirements					
Reference following Alpha Job Number on final report/deliverables: L2205323				Report to include Method Blank, LCS/LCSD:	
Additional Comments: Send all results/reports to subreports@alphalab.com					
Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	HA21-B1(OW)_20220201	02-01-22 14:30	WATER	Ethanol by EPA 1631 Revision A	
		Relinquished By:	Date/Time:	Received By:	Date/Time:
			2/1/22		
Form No: AL_subcoc					



February 09, 2022

Melissa Gulli
Alpha Analytical
145 Flanders Road
Westborough, MA 01581
TEL: (603) 319-5010
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: L2205323

WorkOrder: 22020199

Dear Melissa Gulli:

TEKLAB, INC received 1 sample on 2/4/2022 9:24:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink that reads "Marvin L. Darling II".

Marvin L. Darling
Project Manager
(618)344-1004 ex 41
mdarling@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Quality Control Results	8
Receiving Check List	9
Chain of Custody	Appended



Definitions

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)



Definitions

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

Qualifiers

- | | |
|---|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range |
| H - Holding times exceeded | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

Cooler Receipt Temp: 1.8 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email EHurley@teklabinc.com

Springfield

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Springfield, IL 62711-9415

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Fax (217) 698-1005

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Downers Grove, IL 60515

Phone (630) 324-6855

Fax

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Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214

Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>
Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

Lab ID: 22020199-001

Client Sample ID: HA21-B1(OW)_20220201

Matrix: AQUEOUS

Collection Date: 02/01/2022 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE ORGANICS								
Ethanol	*	20		ND	mg/L	1	02/04/2022 15:14	R306736



Quality Control Results

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE OR

Batch R306736 SampType: MBLK Units mg/L

SampID: MBLK-020422

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		ND						02/04/2022

Batch R306736 SampType: LCS Units mg/L

SampID: LCS-020422

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		290	250.0	0	115.8	70	132	02/04/2022

Batch R306736 SampType: MS Units mg/L

SampID: 22020024-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		300	250.0	0	118.8	70	132	02/04/2022

Batch R306736 SampType: MSD Units mg/L

RPD Limit: 30

SampID: 22020024-002AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ethanol	*	20		320	250.0	0	126.4	297.0	6.16	02/04/2022



Receiving Check List

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020199

Client Project: L2205323

Report Date: 09-Feb-22

Carrier: UPS

Received By: PWR

Completed by:

On:

04-Feb-22

Patrick Riley

Reviewed by:

On:

04-Feb-22

Elizabeth A. Hurley

Pages to follow: Chain of custody

1

Extra pages included

0

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Temp °C 1.8

Type of thermal preservation?

None ☐Ice ☒Blue Ice ☐Dry Ice ☐

Chain of custody present?

Yes ☒No ☐

Chain of custody signed when relinquished and received?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Reported field parameters measured:

Field ☐Lab ☐NA ☒

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?

Yes ☒No ☐No VOA vials ☐

Water - TOX containers have zero headspace?

Yes ☐No ☐No TOX containers ☒


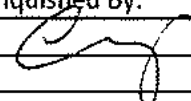
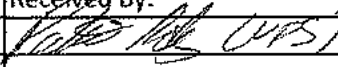
Water - pH acceptable upon receipt?

Yes ☒No ☐NA ☐

NPDES/CWA TCN interferences checked/treated in the field?

Yes ☐No ☐NA ☒

Any No responses must be detailed below or on the COC.

		Subcontract Chain of Custody Tek Lab, Inc. 5445 Horsehoe Lake Road Collinsville, IL 62234-7425		Alpha Job Number L2205323	
Client Information		Project Information		Regulatory Requirements/Report Limits	
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 603.319.5010 Email: mgulli@alphalab.com		Project Location: MA Project Manager: Melissa Gulli Turnaround & Deliverables Information Due Date: Deliverables:		State/Federal Program: Regulatory Criteria: RCS-1-19	
Project Specific Requirements and/or Report Requirements					
Reference following Alpha Job Number on final report/deliverables: L2205323				Report to include Method Blank, LCS/LCSD:	
Additional Comments: Send all results/reports to subreports@alphalab.com					
Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
22020199-001	HA21-B1(OW)_20220201	02-01-22 14:30	WATER	Ethanol by EPA 1671 Revision A <div style="text-align: right; font-family: cursive;"> 1.8°C LTB3 DHS PR 2/4/22 </div>	
Form No: AL_subcoc		Relinquished By:	Date/Time:	Received By:	Date/Time:
			2/3/22	 UPS	2/4/22 0924

PR
2/4/22



ANALYTICAL REPORT

Lab Number:	L2205601
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Kyle Block
Phone:	(617) 886-7440
Project Name:	155 NORTH BEACON STREET
Project Number:	0201602-000
Report Date:	02/14/22

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

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2205601-01	HA21-B1(OW)_20220202	WATER	BOSTON, MA	02/02/22 10:30	02/02/22
L2205601-02	HA21-B6(OW)_20220202	WATER	BOSTON, MA	02/02/22 14:00	02/02/22

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

Case Narrative (continued)

Report Submission

February 14, 2022: This final report includes the results of all requested analyses.

February 09, 2022: This is a preliminary report.

The analysis of Ethanol was subcontracted. A copy of the laboratory report is included as an addendum.

Please note: This data is only available in PDF format and is not available on Data Merger.

Sample Receipt

The analyses performed were specified by the client.

Total Mercury

L2205601-02: The sample has an elevated detection limit for mercury due to the dilution required by the limited sample volume available for analysis.

Chlorine, Total Residual

The WG1600858-4 MS recovery, performed on L2205601-02, is outside the acceptance criteria for chlorine, total residual (0%); however, the associated LCS recovery is within criteria. No further action was taken.

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

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 02/14/22

ORGANICS

VOLATILES

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-02
Client ID: HA21-B6(OW)_20220202
Sample Location: BOSTON, MA

Date Collected: 02/02/22 14:00
Date Received: 02/02/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 02/03/22 07:11
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	11		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	18		ug/l	1.0	--	1
1,1-Dichloroethene	1.1		ug/l	1.0	--	1
cis-1,2-Dichloroethene	82		ug/l	1.0	--	1
Trichloroethene	52		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Methyl tert butyl ether	ND		ug/l	10	--	1
Tert-Butyl Alcohol	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	1



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205601**Project Number:** 0201602-000**Report Date:** 02/14/22**SAMPLE RESULTS**

Lab ID: L2205601-02

Date Collected: 02/02/22 14:00

Client ID: HA21-B6(OW)_20220202

Date Received: 02/02/22

Sample Location: BOSTON, MA

Field Prep: Refer to COC

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	97		60-140
Fluorobenzene	91		60-140
4-Bromofluorobenzene	115		60-140

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-02
Client ID: HA21-B6(OW)_20220202
Sample Location: BOSTON, MA

Date Collected: 02/02/22 14:00
Date Received: 02/02/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 128,624.1-SIM
Analytical Date: 02/03/22 07:11
Analyst: MKS

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

1,4-Dioxane	ND		ug/l	5.0	--	1
-------------	----	--	------	-----	----	---

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	98		60-140
4-Bromofluorobenzene	107		60-140

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-02
 Client ID: HA21-B6(OW)_20220202
 Sample Location: BOSTON, MA

Date Collected: 02/02/22 14:00
 Date Received: 02/02/22
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 02/03/22 17:35
 Analyst: AMM

Extraction Method: EPA 504.1
 Extraction Date: 02/03/22 16:10

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: 155 NORTH BEACON STREET**Lab Number:** L2205601**Project Number:** 0201602-000**Report Date:** 02/14/22

Method Blank Analysis Batch Quality Control

Analytical Method: 128,624.1
 Analytical Date: 02/03/22 05:30
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1601125-4					
Methylene chloride	ND		ug/l	1.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
Tetrachloroethene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 02/03/22 05:30
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1601125-4					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	100		60-140
Fluorobenzene	92		60-140
4-Bromofluorobenzene	116		60-140

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1-SIM
Analytical Date: 02/03/22 05:30
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02 Batch: WG1601128-4					
1,4-Dioxane	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	98		60-140
4-Bromofluorobenzene	105		60-140

Project Name: 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205601**Report Date:** 02/14/22**Method Blank Analysis**
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 02/03/22 16:56
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 02/03/22 16:10

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 02 Batch: WG1601234-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1601125-3								
Methylene chloride	95		-		60-140	-		28
1,1-Dichloroethane	90		-		50-150	-		49
Carbon tetrachloride	110		-		70-130	-		41
1,1,2-Trichloroethane	110		-		70-130	-		45
Tetrachloroethene	120		-		70-130	-		39
1,2-Dichloroethane	105		-		70-130	-		49
1,1,1-Trichloroethane	110		-		70-130	-		36
Benzene	105		-		65-135	-		61
Toluene	115		-		70-130	-		41
Ethylbenzene	130		-		60-140	-		63
Vinyl chloride	75		-		5-195	-		66
1,1-Dichloroethene	95		-		50-150	-		32
cis-1,2-Dichloroethene	95		-		60-140	-		30
Trichloroethene	105		-		65-135	-		48
1,2-Dichlorobenzene	130		-		65-135	-		57
1,3-Dichlorobenzene	130		-		70-130	-		43
1,4-Dichlorobenzene	135		-		65-135	-		57
p/m-Xylene	122		-		60-140	-		30
o-xylene	115		-		60-140	-		30
Acetone	76		-		40-160	-		30
Methyl tert butyl ether	85		-		60-140	-		30
Tert-Butyl Alcohol	82		-		60-140	-		30
Tertiary-Amyl Methyl Ether	80		-		60-140	-		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205601**Report Date:** 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1601125-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	103				60-140
Fluorobenzene	97				60-140
4-Bromofluorobenzene	112				60-140

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Lab Number:** L2205601**Project Number:** 0201602-000**Report Date:** 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02 Batch: WG1601128-3								
1,4-Dioxane	126		-		60-140	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Fluorobenzene	106				60-140
4-Bromofluorobenzene	101				60-140

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205601**Report Date:** 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 02 Batch: WG1601234-2									
1,2-Dibromoethane	85		-		80-120	-			A

Matrix Spike Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

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): 02 QC Batch ID: WG1601234-3 QC Sample: L2205220-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.248	0.210	85		-	-		80-120	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.248	0.220	89		-	-		80-120	-		20	A
1,2,3-Trichloropropane	ND	0.248	0.242	98		-	-		80-120	-		20	A

SEMIVOLATILES

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-02
Client ID: HA21-B6(OW)_20220202
Sample Location: BOSTON, MA

Date Collected: 02/02/22 14:00
Date Received: 02/02/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 02/07/22 01:02
Analyst: WR

Extraction Method: EPA 625.1
Extraction Date: 02/05/22 21:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--	1
Butyl benzyl phthalate	ND		ug/l	5.00	--	1
Di-n-butylphthalate	ND		ug/l	5.00	--	1
Di-n-octylphthalate	ND		ug/l	5.00	--	1
Diethyl phthalate	ND		ug/l	5.00	--	1
Dimethyl phthalate	ND		ug/l	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	90		42-122
2-Fluorobiphenyl	89		46-121
4-Terphenyl-d14	93		47-138

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-02
Client ID: HA21-B6(OW)_20220202
Sample Location: BOSTON, MA

Date Collected: 02/02/22 14:00
Date Received: 02/02/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 02/06/22 14:52
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 02/05/22 21:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.100	--	1
Fluoranthene	ND		ug/l	0.100	--	1
Naphthalene	ND		ug/l	0.100	--	1
Benzo(a)anthracene	ND		ug/l	0.100	--	1
Benzo(a)pyrene	ND		ug/l	0.100	--	1
Benzo(b)fluoranthene	ND		ug/l	0.100	--	1
Benzo(k)fluoranthene	ND		ug/l	0.100	--	1
Chrysene	ND		ug/l	0.100	--	1
Acenaphthylene	ND		ug/l	0.100	--	1
Anthracene	ND		ug/l	0.100	--	1
Benzo(ghi)perylene	ND		ug/l	0.100	--	1
Fluorene	ND		ug/l	0.100	--	1
Phenanthrene	ND		ug/l	0.100	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--	1
Pyrene	ND		ug/l	0.100	--	1
Pentachlorophenol	ND		ug/l	1.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		25-87
Phenol-d6	40		16-65
Nitrobenzene-d5	91		42-122
2-Fluorobiphenyl	80		46-121
2,4,6-Tribromophenol	109		45-128
4-Terphenyl-d14	90		47-138



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
 Analytical Date: 02/06/22 23:54
 Analyst: WR

Extraction Method: EPA 625.1
 Extraction Date: 02/05/22 21:51

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1601836-1					
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--
Butyl benzyl phthalate	ND		ug/l	5.00	--
Di-n-butylphthalate	ND		ug/l	5.00	--
Di-n-octylphthalate	ND		ug/l	5.00	--
Diethyl phthalate	ND		ug/l	5.00	--
Dimethyl phthalate	ND		ug/l	5.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	69		42-122
2-Fluorobiphenyl	70		46-121
4-Terphenyl-d14	69		47-138

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

Method Blank Analysis Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 02/06/22 14:20
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 02/05/22 21:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02 Batch: WG1601837-1					
Acenaphthene	ND		ug/l	0.100	--
Fluoranthene	ND		ug/l	0.100	--
Naphthalene	ND		ug/l	0.100	--
Benzo(a)anthracene	ND		ug/l	0.100	--
Benzo(a)pyrene	ND		ug/l	0.100	--
Benzo(b)fluoranthene	ND		ug/l	0.100	--
Benzo(k)fluoranthene	ND		ug/l	0.100	--
Chrysene	ND		ug/l	0.100	--
Acenaphthylene	ND		ug/l	0.100	--
Anthracene	ND		ug/l	0.100	--
Benzo(ghi)perylene	ND		ug/l	0.100	--
Fluorene	ND		ug/l	0.100	--
Phenanthrene	ND		ug/l	0.100	--
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--
Pyrene	ND		ug/l	0.100	--
Pentachlorophenol	ND		ug/l	1.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-87
Phenol-d6	41		16-65
Nitrobenzene-d5	90		42-122
2-Fluorobiphenyl	78		46-121
2,4,6-Tribromophenol	99		45-128
4-Terphenyl-d14	81		47-138



Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205601**Report Date:** 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1601836-2								
Bis(2-ethylhexyl)phthalate	109		-		29-137	-		82
Butyl benzyl phthalate	101		-		1-140	-		60
Di-n-butylphthalate	99		-		8-120	-		47
Di-n-octylphthalate	106		-		19-132	-		69
Diethyl phthalate	95		-		1-120	-		100
Dimethyl phthalate	96		-		1-120	-		183

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	93				42-122
2-Fluorobiphenyl	90				46-121
4-Terphenyl-d14	91				47-138

Lab Control Sample Analysis Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02 Batch: WG1601837-2								
Acenaphthene	79		-		60-132	-		30
Fluoranthene	90		-		43-121	-		30
Naphthalene	77		-		36-120	-		30
Benzo(a)anthracene	97		-		42-133	-		30
Benzo(a)pyrene	95		-		32-148	-		30
Benzo(b)fluoranthene	95		-		42-140	-		30
Benzo(k)fluoranthene	92		-		25-146	-		30
Chrysene	81		-		44-140	-		30
Acenaphthylene	88		-		54-126	-		30
Anthracene	85		-		43-120	-		30
Benzo(ghi)perylene	94		-		1-195	-		30
Fluorene	85		-		70-120	-		30
Phenanthrene	79		-		65-120	-		30
Dibenzo(a,h)anthracene	104		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	100		-		1-151	-		30
Pyrene	90		-		70-120	-		30
Pentachlorophenol	90		-		38-152	-		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205601**Report Date:** 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02 Batch: WG1601837-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	61				25-87
Phenol-d6	43				16-65
Nitrobenzene-d5	89				42-122
2-Fluorobiphenyl	79				46-121
2,4,6-Tribromophenol	105				45-128
4-Terphenyl-d14	89				47-138

PCBS

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-02
Client ID: HA21-B6(OW)_20220202
Sample Location: BOSTON, MA

Date Collected: 02/02/22 14:00
Date Received: 02/02/22
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 02/09/22 02:08
Analyst: AWS

Extraction Method: EPA 608.3
Extraction Date: 02/08/22 08:38
Cleanup Method: EPA 3665A
Cleanup Date: 02/08/22
Cleanup Method: EPA 3660B
Cleanup Date: 02/08/22

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	77		37-123	B
Decachlorobiphenyl	86		38-114	B
2,4,5,6-Tetrachloro-m-xylene	70		37-123	A
Decachlorobiphenyl	76		38-114	A



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

Method Blank Analysis Batch Quality Control

Analytical Method: 127,608.3
 Analytical Date: 02/09/22 02:27
 Analyst: AWS

Extraction Method: EPA 608.3
 Extraction Date: 02/08/22 08:38
 Cleanup Method: EPA 3665A
 Cleanup Date: 02/08/22
 Cleanup Method: EPA 3660B
 Cleanup Date: 02/08/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02 Batch: WG1602527-1						
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	63		37-123	B
Decachlorobiphenyl	73		38-114	B
2,4,5,6-Tetrachloro-m-xylene	63		37-123	A
Decachlorobiphenyl	68		38-114	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 Batch: WG1602527-2									
Aroclor 1016	85		-		50-140	-		36	A
Aroclor 1260	86		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75				37-123	B
Decachlorobiphenyl	87				38-114	B
2,4,5,6-Tetrachloro-m-xylene	76				37-123	A
Decachlorobiphenyl	81				38-114	A

METALS

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205601**Project Number:** 0201602-000**Report Date:** 02/14/22**SAMPLE RESULTS**

Lab ID: L2205601-02

Date Collected: 02/02/22 14:00

Client ID: HA21-B6(OW)_20220202

Date Received: 02/02/22

Sample Location: BOSTON, MA

Field Prep: Refer to COC

Sample Depth:

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	0.00400	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Arsenic, Total	0.00380		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Chromium, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Copper, Total	ND		mg/l	0.00200	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Iron, Total	0.238		mg/l	0.050	--	1	02/06/22 13:09	02/06/22 20:12	EPA 3005A	19,200.7	DL
Lead, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Mercury, Total	ND		mg/l	0.00040	--	1	02/08/22 07:26	02/08/22 10:09	EPA 245.1	3,245.1	AC
Nickel, Total	ND		mg/l	0.00200	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Zinc, Total	0.01017		mg/l	0.01000	--	1	02/06/22 13:09	02/07/22 09:27	EPA 3005A	3,200.8	SV
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	240		mg/l	0.660	NA	1	02/06/22 13:09	02/07/22 12:37	EPA 3005A	19,200.7	GD

General Chemistry - Mansfield Lab

Chromium, Trivalent	ND		mg/l	0.010	--	1		02/07/22 09:27	NA	107,-	
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Project Name: 155 NORTH BEACON STREET

Lab Number: L2205601

Project Number: 0201602-000

Report Date: 02/14/22

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): 02 Batch: WG1601945-1										
Iron, Total	ND		mg/l	0.050	--	1	02/06/22 13:09	02/06/22 19:05	19,200.7	DL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 02 Batch: WG1601945-1										
Hardness	ND		mg/l	0.660	NA	1	02/06/22 13:09	02/07/22 12:28	19,200.7	GD

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): 02 Batch: WG1601947-1										
Antimony, Total	ND		mg/l	0.00400	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Arsenic, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Chromium, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Copper, Total	ND		mg/l	0.00200	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Lead, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Nickel, Total	ND		mg/l	0.00200	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Zinc, Total	ND		mg/l	0.01000	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV

Prep Information

Digestion Method: EPA 3005A



Project Name: 155 NORTH BEACON STREET

Lab Number: L2205601

Project Number: 0201602-000

Report Date: 02/14/22

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): 02 Batch: WG1602468-1										
Mercury, Total	ND		mg/l	0.00020	--	1	02/08/22 07:26	02/08/22 10:03	3,245.1	AC

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1601945-2								
Iron, Total	100		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 02 Batch: WG1601945-2								
Hardness	103		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1601947-2								
Antimony, Total	91		-		85-115	-		
Arsenic, Total	100		-		85-115	-		
Cadmium, Total	96		-		85-115	-		
Chromium, Total	97		-		85-115	-		
Copper, Total	95		-		85-115	-		
Lead, Total	97		-		85-115	-		
Nickel, Total	98		-		85-115	-		
Selenium, Total	99		-		85-115	-		
Silver, Total	101		-		85-115	-		
Zinc, Total	97		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1602468-2								
Mercury, Total	99		-		85-115	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

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): 02 QC Batch ID: WG1601945-3 QC Sample: L2205978-02 Client ID: MS Sample												
Iron, Total	8.21	1	9.06	85		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1601945-3 QC Sample: L2205978-02 Client ID: MS Sample												
Hardness	315	66.2	379	97		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1601947-3 QC Sample: L2205978-02 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.4565	91		-	-		70-130	-		20
Arsenic, Total	0.00294	0.12	0.1202	98		-	-		70-130	-		20
Cadmium, Total	ND	0.053	0.05013	94		-	-		70-130	-		20
Chromium, Total	ND	0.2	0.1880	94		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2377	95		-	-		70-130	-		20
Lead, Total	0.01433	0.53	0.5157	94		-	-		70-130	-		20
Nickel, Total	ND	0.5	0.4758	95		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1132	94		-	-		70-130	-		20
Silver, Total	ND	0.05	0.05013	100		-	-		70-130	-		20
Zinc, Total	0.01373	0.5	0.4928	96		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1602468-3 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202												
Mercury, Total	ND	0.01	0.00974	97		-	-		70-130	-		20

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2205601
Report Date: 02/14/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1601945-4 QC Sample: L2205978-02 Client ID: DUP Sample						
Iron, Total	8.21	8.12	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1601947-4 QC Sample: L2205978-02 Client ID: DUP Sample						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00294	0.00288	mg/l	2		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	0.01433	0.01435	mg/l	0		20
Nickel, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.01373	0.01372	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1602468-4 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-01
Client ID: HA21-B1(OW)_20220202
Sample Location: BOSTON, MA

Date Collected: 02/02/22 10:30
Date Received: 02/02/22
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	02/03/22 15:00	02/03/22 15:45	140,1664B	NP



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205601
Report Date: 02/14/22

SAMPLE RESULTS

Lab ID: L2205601-02
Client ID: HA21-B6(OW)_20220202
Sample Location: BOSTON, MA

Date Collected: 02/02/22 14:00
Date Received: 02/02/22
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	7.3		mg/l	5.0	NA	1	-	02/06/22 13:57	121,2540D	SH
Cyanide, Total	ND		mg/l	0.005	--	1	02/03/22 05:20	02/03/22 14:01	121,4500CN-CE	CS
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/02/22 23:11	121,4500CL-D	AS
pH (H)	7.6		SU	-	NA	1	-	02/02/22 22:41	121,4500H+-B	AS
Nitrogen, Ammonia	0.135		mg/l	0.075	--	1	02/03/22 02:34	02/03/22 20:33	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00	--	1	02/03/22 15:00	02/03/22 15:45	140,1664B	NP
Phenolics, Total	ND		mg/l	0.030	--	1	02/04/22 06:47	02/04/22 11:57	4,420.1	KP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/02/22 23:40	02/03/22 00:03	1,7196A	AS
Anions by Ion Chromatography - Westborough Lab										
Chloride	199.		mg/l	12.5	--	25	-	02/03/22 20:17	44,300.0	AT



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205601**Project Number:** 0201602-000**Report Date:** 02/14/22

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): 02 Batch: WG1600858-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/02/22 23:11	121,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1600864-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/02/22 23:40	02/03/22 00:02	1,7196A	AS
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1600872-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	02/03/22 02:34	02/03/22 20:30	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1600887-1										
Cyanide, Total	ND		mg/l	0.005	--	1	02/03/22 05:20	02/03/22 13:05	121,4500CN-CE	CS
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1601044-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	02/03/22 15:00	02/03/22 15:45	140,1664B	NP
Anions by Ion Chromatography - Westborough Lab for sample(s): 02 Batch: WG1601336-1										
Chloride	ND		mg/l	0.500	--	1	-	02/03/22 16:49	44,300.0	AT
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1601417-1										
Phenolics, Total	ND		mg/l	0.030	--	1	02/04/22 06:47	02/04/22 11:51	4,420.1	KP
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1601948-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	02/06/22 13:57	121,2540D	SH



Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1600852-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1600858-2								
Chlorine, Total Residual	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1600864-2								
Chromium, Hexavalent	104		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1600872-2								
Nitrogen, Ammonia	96		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1600887-2								
Cyanide, Total	107		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1601044-2								
TPH	78		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 Batch: WG1601336-2								
Chloride	103		-		90-110	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1601417-2					
Phenolics, Total	91	-	70-130	-	
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1601948-2					
Solids, Total Suspended	103	-	80-120	-	

Matrix Spike Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

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): 02 QC Batch ID: WG1600858-4 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202												
Chlorine, Total Residual	ND	0.25	ND	0	Q	-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600864-4 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202												
Chromium, Hexavalent	ND	0.1	0.088	88		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600872-4 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202												
Nitrogen, Ammonia	0.135	4	3.43	82		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600887-4 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202												
Cyanide, Total	ND	0.2	0.215	108		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1601044-4 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202												
TPH	ND	19.2	13.6	71		-	-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1601336-3 QC Sample: L2205661-01 Client ID: MS Sample												
Chloride	331	100	435	104		-	-		90-110	-		18
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1601417-4 QC Sample: L2205323-01 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.37	92		-	-		70-130	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600852-2 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202						
pH (H)	7.6	7.3	SU	4		5
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600858-3 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600864-3 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600872-3 QC Sample: L2205601-02 Client ID: HA21-B6(OW)_20220202						
Nitrogen, Ammonia	0.135	0.131	mg/l	3		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1600887-3 QC Sample: L2204040-01 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1601044-3 QC Sample: L2205601-01 Client ID: HA21-B1(OW)_20220202						
TPH, SGT-HEM	ND	ND	mg/l	NC		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1601336-4 QC Sample: L2205661-01 Client ID: DUP Sample						
Chloride	331	330	mg/l	0		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205601

Report Date: 02/14/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1601417-3 QC Sample: L2205323-01 Client ID: DUP Sample					
Phenolics, Total	ND	ND	mg/l	NC	20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1601948-3 QC Sample: L2205161-01 Client ID: DUP Sample					
Solids, Total Suspended	200	200	mg/l	0	29

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205601**Project Number:** 0201602-000**Report Date:** 02/14/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205601-01A	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		L-EXT-PCB-608.3(365)
L2205601-01B	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		L-EXT-625.1(7)
L2205601-01C	Amber 1000ml HCl preserved	A	NA		3.0	Y	Absent		TPH-1664(28)
L2205601-01D	Amber 1000ml HCl preserved	A	NA		3.0	Y	Absent		TPH-1664(28)
L2205601-02A	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2205601-02B	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2205601-02C	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2205601-02D	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2205601-02E	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		504(14)
L2205601-02F	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		504(14)
L2205601-02G	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		504(14)
L2205601-02H	Vial Na2S2O3 preserved	B	NA		2.8	Y	Absent		504(14)
L2205601-02J	Vial unpreserved	B	NA		2.8	Y	Absent		SUB-ETHANOL(14)
L2205601-02K	Vial unpreserved	B	NA		2.8	Y	Absent		SUB-ETHANOL(14)
L2205601-02L	Vial unpreserved	B	NA		2.8	Y	Absent		SUB-ETHANOL(14)
L2205601-02M	Plastic 250ml HNO3 preserved	B	<2	<2	2.8	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),FE-UI(180),HARDU(180),SE-2008T(180),AG-2008T(180),HG-U(28),AS-2008T(180),PB-2008T(180),CR-2008T(180),SB-2008T(180)
L2205601-02N	Plastic 250ml HNO3 preserved	B	<2	<2	2.8	Y	Absent		HOLD-METAL-DISSOLVED(180),HOLD-HG-DISSOLVED(28)
L2205601-02O	Plastic 250ml NaOH preserved	B	>12	>12	2.8	Y	Absent		TCN-4500(14)
L2205601-02P	Plastic 500ml H2SO4 preserved	B	<2	<2	2.8	Y	Absent		NH3-4500(28)

Project Name: 155 NORTH BEACON STREET
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Lab Number: L2205601
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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205601-02Q	Plastic 950ml unpreserved	A	7	7	3.0	Y	Absent		HEXCR-7196(1),CL-300(28),TRC-4500(1),PH-4500(.01)
L2205601-02R	Plastic 950ml unpreserved	A	7	7	3.0	Y	Absent		TSS-2540(7)
L2205601-02S	Amber 950ml H2SO4 preserved	A	<4	<4	3.0	Y	Absent		TPHENOL-420(28)
L2205601-02T	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L2205601-02U	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L2205601-02V	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		PCB-608.3(365)
L2205601-02V1	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		PCB-608.3(365)
L2205601-02V2	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		PCB-608.3(365)
L2205601-02V3	Amber 1000ml Na2S2O3	A	7	7	3.0	Y	Absent		PCB-608.3(365)
L2205601-02X	Amber 1000ml HCl preserved	A	NA		3.0	Y	Absent		TPH-1664(28)
L2205601-02Y	Amber 1000ml HCl preserved	A	NA		3.0	Y	Absent		TPH-1664(28)

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205601**Project Number:** 0201602-000**Report Date:** 02/14/22

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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.

Report Format: Data Usability Report

Project Name: 155 NORTH BEACON STREET
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Footnotes

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



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Data Qualifiers

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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 155 NORTH BEACON STREET
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Lab Number: L2205601
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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 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.
- 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.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.
- 128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.
- 129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.
- 140 Method 1664, Revision B: 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-10-001, February 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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

Page 1 of 1

Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,


3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **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 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** 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 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

 CHAIN OF CUSTODY		Service Centers Brewster, ME 04412 Portsmouth, NH 03801 Mahwah, NJ 07430 Albany, NY 12208 Tonawanda, NY 14150 Holmes, PA 19043		Page 1 of 1		Date Rec'd in Lab 2/2/22		ALPHA Job # L2205601		
Westborough, MA 01581 8 Wakeup Dr. TEL: 508-808-0000 FAX: 508-808-9155		Mansfield, MA 02048 129 FORDS DR TEL: 508-823-0300 FAX: 508-823-3298		Project Information Project Name: 155 North Beacon St. Project Location: Boston, MA Project #: 0201602-000 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> EQUS (1 File) <input type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other:		Billing Information <input type="checkbox"/> Same as Client Info PO #		
H&A Information H&A Client: IQH&D, Inc. H&A Address: 485 Medford Street, Suite 2200 Boston, MA 02129 H&A Phone: 617.693.2293 H&A Fax: H&A Email: JThibault, TCairns, KBlock		Regulatory Requirements (Programs/Criteria) MA 2017 NPDES RGP Note: Select Date from menu & identify criteria.		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:						
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Samples submitted for 2017 NPDES RGP application; please follow approved testing methods and minimum detection levels as required by EPA.		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)						
Please specify Metals or TAL: HAZAR (low) Bottoms		1. VOCs (24.1 & 624.1- 3M 2. SVOCs 625.1 & 625.1- N-54 3M 625.1- 3. TSS 2542, TNC 4500, 4. 300, TCN 5. Ammonia (NH3), Hex Cr, Hardness, pH 6. Ethanol 7. Total NPDES RGP Metals 8. NPDES RGP Metals (Field Filtered) (DN)		Sample Specific Comments						
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler Initials	Depth					
05601 - 01	HA21- B1 (low) - 20200202	2/2 1030	AQ	SR	-	X	X	X	X	1. 1,4-Dioxane by 624.1-SIM
- 02	HA21- B6 (low) - 20200202	2/2 1400	AQ	L	-	X	X	X	X	6. Sub Ethanol
	Receiving Water		AQ							7. NPDES RGP Metals
										Includes: Ag, As, Cd, Cr, Ti, C
										Cu, Ni, Pb, Sb, Se, Zn, Fe, Hg
										8. Field Filtered NPDES RGP
										Metals (DN HOLD)
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₄ I = Zn AcNaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encone D = 900 Bottle		Westboro: Certification No: MA035 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. Alpha Analytical's services under this Chain of Custody shall be performed in accordance with terms and conditions within Standard Service Agreement 2019-23 Alpha Analytical by and between Haley & Alarik, Inc., its subsidiaries and affiliates and Alpha Analytical.		
Relinquished By: <i>[Signature]</i>		Date/Time: 2/2/22 1510		Received By: <i>[Signature]</i>		Date/Time: 2/2/22 1530				
<i>[Signature]</i>		2/2/22 1530		<i>[Signature]</i>		2/2/22 1630				
<i>[Signature]</i>		2/2/22 1815		<i>[Signature]</i>		2/2/22 1815				

		Subcontract Chain of Custody Tek Lab, Inc. 5445 Horseshoe Lake Road Collinsville, IL 62234-3425		Alpha Job Number L2205601	
Client Information		Project Information		Regulatory Requirements/Report Limits	
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 603.319.5010 Email: mgull@alphalab.com		Project Location: MA Project Manager: Melissa Gull Turnaround & Deliverables Information Due Date: Deliverables:		State/Federal Program: Regulatory Criteria: RCS-1-19	
Project Specific Requirements and/or Report Requirements					
Reference following Alpha Job Number on final report/deliverables: L2205601				Report to include Method Blank, LCS/LCSD:	
Additional Comments: Send all results/reports to subreports@alphalab.com					
Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	HA21-B6(OW)_20220202	02-02-22 14:00	WATER	Ethanol by EPA 1671 Revision A	
Form No: AL_subcoc		Relinquished By:	Date/Time:	Received By:	Date/Time:
			2/3/22		

February 14, 2022

Melissa Gulli
Alpha Analytical
145 Flanders Road
Westborough, MA 01581
TEL: (603) 319-5010
FAX:

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: L2205601

WorkOrder: 22020243

Dear Melissa Gulli:

TEKLAB, INC received 1 sample on 2/7/2022 10:19:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Marvin L. Darling
Project Manager
(618)344-1004 ex 41
mdarling@teklabinc.com

Report Contents

<http://www.teklabinc.com/>**Client:** Alpha Analytical**Work Order:** 22020243**Client Project:** L2205601**Report Date:** 14-Feb-22**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
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Accreditations	6
Laboratory Results	7
Quality Control Results	8
Receiving Check List	9
Chain of Custody	Appended

Definitions

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020243

Client Project: L2205601

Report Date: 14-Feb-22

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Definitions

<http://www.teklabinc.com/>**Client:** Alpha Analytical**Work Order:** 22020243**Client Project:** L2205601**Report Date:** 14-Feb-22

Qualifiers

# - Unknown hydrocarbon	B - Analyte detected in associated Method Blank
C - RL shown is a Client Requested Quantitation Limit	E - Value above quantitation range
H - Holding times exceeded	I - Associated internal standard was outside method criteria
J - Analyte detected below quantitation limits	M - Manual Integration used to determine area response
ND - Not Detected at the Reporting Limit	R - RPD outside accepted recovery limits
S - Spike Recovery outside recovery limits	T - TIC(Tentatively identified compound)
X - Value exceeds Maximum Contaminant Level	

Case Narrative

<http://www.teklabinc.com/>**Client:** Alpha Analytical**Work Order:** 22020243**Client Project:** L2205601**Report Date:** 14-Feb-22**Cooler Receipt Temp:** 1.8 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415

Phone (217) 698-1004

Fax (217) 698-1005

Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515

Phone (630) 324-6855

Fax

Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214

Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com

Accreditations

<http://www.teklabinc.com/>

Client: Alpha Analytical
Client Project: L2205601

Work Order: 22020243
Report Date: 14-Feb-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Laboratory Results

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020243

Client Project: L2205601

Report Date: 14-Feb-22

Lab ID: 22020243-001

Client Sample ID: HA21-B6(OW)_20220202

Matrix: AQUEOUS

Collection Date: 02/02/2022 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE ORGANICS								
Ethanol	*	20		ND	mg/L	1	02/10/2022 10:25	R306928

Quality Control Results

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020243

Client Project: L2205601

Report Date: 14-Feb-22

EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE OR

Batch R306928 SampType: MBLK Units mg/L

SampID: MBLK-021022

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		ND						02/10/2022

Batch R306928 SampType: LCS Units mg/L

SampID: LCS-021022

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		300	250.0	0	119.0	70	132	02/10/2022

Batch R306928 SampType: MS Units mg/L

SampID: 22020243-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		310	250.0	0	125.9	70	132	02/10/2022

Batch R306928 SampType: MSD Units mg/L

RPD Limit: 30

SampID: 22020243-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ethanol	*	20		320	250.0	0	126.3	314.7	0.36	02/10/2022

Receiving Check List

<http://www.teklabinc.com/>

Client: Alpha Analytical

Work Order: 22020243

Client Project: L2205601

Report Date: 14-Feb-22

Carrier: UPS

Received By: MEK

Completed by:

Reviewed by:

On:

On:

07-Feb-22

07-Feb-22

Mary E. Kemp

Elizabeth A. Hurley

Pages to follow: Chain of custody

1

Extra pages included

0

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Temp °C 1.8

Type of thermal preservation?

None ☐Ice ☒Blue Ice ☐Dry Ice ☐

Chain of custody present?

Yes ☒No ☐

Chain of custody signed when relinquished and received?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Reported field parameters measured:

Field ☐Lab ☐NA ☒

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?

Yes ☒No ☐No VOA vials ☐

Water - TOX containers have zero headspace?

Yes ☐No ☐No TOX containers ☒

Water - pH acceptable upon receipt?



Yes ☒No ☐NA ☐

NPDES/CWA TCN interferences checked/treated in the field?

Yes ☐No ☐NA ☒

Any No responses must be detailed below or on the COC.

22020202-3

		Subcontract Chain of Custody Tek Lab, Inc. 5445 Horsehoe Lake Road Collinsville, IL 62234-7425		Alpha Job Number L2205601	
Client Information Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 603.319.5010 Email: mgulli@alphalab.com		Project Information Project Location: MA Project Manager: Melissa Gulli Turnaround & Deliverables Information Due Date: Deliverables:		Regulatory Requirements/Report Limits State/Federal Program: Regulatory Criteria: RCS-1-19	
Project Specific Requirements and/or Report Requirements					
Reference following Alpha Job Number on final report/deliverables: L2205601				Report to include Method Blank, LCS/LCSD:	
Additional Comments: Send all results/reports to subreports@alphalab.com					
Lab ID 22020202-001	Client ID HAZ1-86(OW)_20220202	Collection Date/Time 02-02-22 14:00	Sample Matrix WATER	Analysis Ethanol by EPA 1671 Revision A 1.8°C LTG 3 0 HS 98 2/7/21	Batch QC
Relinquished By: 		Date/Time: 2/3/22		Received By: Marykemp (UPS)	
Date/Time:		Date/Time:		Date/Time: 2/12/22 10:19	
Form No: AL_subcoc					



ANALYTICAL REPORT

Lab Number:	L2205983
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Kyle Block
Phone:	(617) 886-7440
Project Name:	155 NORTH BEACON STREET
Project Number:	0201602-000
Report Date:	02/09/22

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

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2205983-01	RECEIVING WATER-20220203	WATER	BOSTON, MA	02/03/22 13:30	02/03/22

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

Case Narrative (continued)

Total Metals

L2205983-01: The sample has elevated detection limits due to the dilution required by the sample matrix.

Total Mercury

L2205983-01: The sample has an elevated detection limit for mercury due to the prep dilution required by the limited 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:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 02/09/22

METALS

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205983**Project Number:** 0201602-000**Report Date:** 02/09/22**SAMPLE RESULTS**

Lab ID: L2205983-01

Date Collected: 02/03/22 13:30

Client ID: RECEIVING WATER-20220203

Date Received: 02/03/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

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	0.04000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Arsenic, Total	ND		mg/l	0.01000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Cadmium, Total	ND		mg/l	0.00200	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Chromium, Total	ND		mg/l	0.01000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Copper, Total	0.03374		mg/l	0.01000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Iron, Total	6.26		mg/l	0.050	--	1	02/06/22 13:09	02/06/22 20:57	EPA 3005A	19,200.7	DL
Lead, Total	0.03249		mg/l	0.01000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Mercury, Total	ND		mg/l	0.00100	--	1	02/09/22 13:29	02/09/22 16:26	EPA 245.1	3,245.1	AC
Nickel, Total	ND		mg/l	0.02000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Selenium, Total	ND		mg/l	0.05000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Silver, Total	ND		mg/l	0.00400	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Zinc, Total	0.1727		mg/l	0.1000	--	10	02/06/22 13:09	02/09/22 11:39	EPA 3005A	3,200.8	CD
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	115		mg/l	0.660	NA	1	02/06/22 13:09	02/07/22 10:56	EPA 3005A	19,200.7	GD

General Chemistry - Mansfield Lab

Chromium, Trivalent	ND		mg/l	0.010	--	1	02/09/22 11:39	NA	107,-
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Project Name: 155 NORTH BEACON STREET

Lab Number: L2205983

Project Number: 0201602-000

Report Date: 02/09/22

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: WG1601945-1										
Iron, Total	ND		mg/l	0.050	--	1	02/06/22 13:09	02/06/22 19:05	19,200.7	DL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01 Batch: WG1601945-1										
Hardness	ND		mg/l	0.660	NA	1	02/06/22 13:09	02/07/22 12:28	19,200.7	GD

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: WG1601947-1										
Antimony, Total	ND		mg/l	0.00400	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Arsenic, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Chromium, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Copper, Total	ND		mg/l	0.00200	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Lead, Total	ND		mg/l	0.00100	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Nickel, Total	ND		mg/l	0.00200	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV
Zinc, Total	ND		mg/l	0.01000	--	1	02/06/22 13:09	02/07/22 08:35	3,200.8	SV

Prep Information

Digestion Method: EPA 3005A



Project Name: 155 NORTH BEACON STREET

Lab Number: L2205983

Project Number: 0201602-000

Report Date: 02/09/22

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: WG1603119-1										
Mercury, Total	ND		mg/l	0.00020	--	1	02/09/22 13:29	02/09/22 16:19	3,245.1	AC

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205983

Report Date: 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1601945-2								
Iron, Total	100		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 Batch: WG1601945-2								
Hardness	103		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1601947-2								
Antimony, Total	91		-		85-115	-		
Arsenic, Total	100		-		85-115	-		
Cadmium, Total	96		-		85-115	-		
Chromium, Total	97		-		85-115	-		
Copper, Total	95		-		85-115	-		
Lead, Total	97		-		85-115	-		
Nickel, Total	98		-		85-115	-		
Selenium, Total	99		-		85-115	-		
Silver, Total	101		-		85-115	-		
Zinc, Total	97		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1603119-2								
Mercury, Total	99		-		85-115	-		

Matrix Spike Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205983

Report Date: 02/09/22

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: WG1601945-3 QC Sample: L2205978-02 Client ID: MS Sample												
Iron, Total	8.21	1	9.06	85		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601945-3 QC Sample: L2205978-02 Client ID: MS Sample												
Hardness	315	66.2	379	97		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601947-3 QC Sample: L2205978-02 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.4565	91		-	-		70-130	-		20
Arsenic, Total	0.00294	0.12	0.1202	98		-	-		70-130	-		20
Cadmium, Total	ND	0.053	0.05013	94		-	-		70-130	-		20
Chromium, Total	ND	0.2	0.1880	94		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2377	95		-	-		70-130	-		20
Lead, Total	0.01433	0.53	0.5157	94		-	-		70-130	-		20
Nickel, Total	ND	0.5	0.4758	95		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1132	94		-	-		70-130	-		20
Silver, Total	ND	0.05	0.05013	100		-	-		70-130	-		20
Zinc, Total	0.01373	0.5	0.4928	96		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1603119-3 QC Sample: L2205983-01 Client ID: RECEIVING WATER-20220203												
Mercury, Total	ND	0.025	0.02294	92		-	-		70-130	-		20

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2205983
Report Date: 02/09/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601945-4 QC Sample: L2205978-02 Client ID: DUP Sample						
Iron, Total	8.21	8.12	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601947-4 QC Sample: L2205978-02 Client ID: DUP Sample						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00294	0.00288	mg/l	2		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	0.01433	0.01435	mg/l	0		20
Nickel, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.01373	0.01372	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1603119-4 QC Sample: L2205983-01 Client ID: RECEIVING WATER-20220203						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

SAMPLE RESULTS

Lab ID: L2205983-01
Client ID: RECEIVING WATER-20220203
Sample Location: BOSTON, MA

Date Collected: 02/03/22 13:30
Date Received: 02/03/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	6.8		SU	-	NA	1	-	02/03/22 23:04	121,4500H+-B	AS
Nitrogen, Ammonia	1.28		mg/l	0.750	--	10	02/04/22 03:15	02/04/22 20:12	121,4500NH3-BH	AT
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/04/22 08:50	02/04/22 09:04	1,7196A	KP



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

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: WG1601361-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	02/04/22 03:15	02/04/22 19:54	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1601498-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/04/22 08:50	02/04/22 09:04	1,7196A	KP



Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205983**Report Date:** 02/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1601332-1								
pH	99		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1601361-2								
Nitrogen, Ammonia	95		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1601498-2								
Chromium, Hexavalent	106		-		85-115	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Lab Number: L2205983

Project Number: 0201602-000

Report Date: 02/09/22

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: WG1601361-4 QC Sample: L2205978-01 Client ID: MS Sample												
Nitrogen, Ammonia	2.90	4	7.03	103		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1601498-4 QC Sample: L2205983-01 Client ID: RECEIVING WATER-20220203												
Chromium, Hexavalent	ND	0.1	0.102	102		-	-		85-115	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1601332-2 QC Sample: L2205983-01 Client ID: RECEIVING WATER-20220203						
pH (H)	6.8	6.9	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1601361-3 QC Sample: L2205978-01 Client ID: DUP Sample						
Nitrogen, Ammonia	2.90	3.28	mg/l	12		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1601498-3 QC Sample: L2205983-01 Client ID: RECEIVING WATER-20220203						
Chromium, Hexavalent	ND	ND	mg/l	NC		20

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205983**Project Number:** 0201602-000**Report Date:** 02/09/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

D Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205983-01A	Plastic 250ml unpreserved	D	7	7	3.9	Y	Absent		HEXCR-7196(1),TRICR-CALC(1),PH-4500(.01)
L2205983-01B	Plastic 250ml HNO3 preserved	D	<2	<2	3.9	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),HARDU(180),CU-2008T(180),FE-UI(180),SE-2008T(180),AG-2008T(180),AS-2008T(180),HG-U(28),SB-2008T(180),PB-2008T(180),CR-2008T(180)
L2205983-01C	Plastic 500ml H2SO4 preserved	D	<2	<2	3.9	Y	Absent		NH3-4500(28)

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205983**Project Number:** 0201602-000**Report Date:** 02/09/22

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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.

Report Format: Data Usability Report

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

Footnotes

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

Data Qualifiers

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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205983
Report Date: 02/09/22

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 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.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 19

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **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 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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



ANALYTICAL REPORT

Lab Number:	L2205987
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Kyle Block
Phone:	(617) 886-7440
Project Name:	155 NORTH BEACON STREET
Project Number:	0201602-000
Report Date:	02/11/22

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

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2205987-01	HA21-B9(OW)_20220203	WATER	BOSTON, MA	02/03/22 12:30	02/03/22

Project Name: 155 NORTH BEACON STREET

Lab Number: L2205987

Project Number: 0201602-000

Report Date: 02/11/22

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).	YES
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?	NO
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: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question H:

L2205987-01: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0025)

Average Response Factor: 1,4-dioxane

L2205987-01: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

Semivolatile Organics by SIM

L2205987-01 and WG1603319: The initial calibration utilized a quadratic fit for Pentachlorophenol.

VPH

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

EPH

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

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

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 02/11/22

QC OUTLIER SUMMARY REPORT

Project Name: 155 NORTH BEACON STREET

Lab Number: L2205987

Project Number: 0201602-000

Report Date: 02/11/22

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC	WG1602114-3	1,4-Dioxane	LCS	68	70-130	01	potential low bias
8260D	Batch QC	WG1602114-4	Acetone	LCSD	22	20	01	non-directional bias
8260D	Batch QC	WG1602114-4	Acetone	LCSD	150	70-130	01	potential high bias
8260D	Batch QC	WG1602114-4	1,4-Dioxane	LCSD	21	20	01	non-directional bias
MCP Semivolatile Organics - Westborough Lab								
8270E	Batch QC	WG1603318-2	3,3'-Dichlorobenzidine	LCS	31	40-140	01	potential low bias
8270E	Batch QC	WG1603318-2	Hexachlorobutadiene	LCS	39	40-140	01	potential low bias
8270E	Batch QC	WG1603318-2	Aniline	LCS	15	40-140	01	potential low bias
8270E	Batch QC	WG1603318-2	4-Chloroaniline	LCS	28	40-140	01	potential low bias
8270E	Batch QC	WG1603318-3	3,3'-Dichlorobenzidine	LCSD	36	40-140	01	potential low bias
8270E	Batch QC	WG1603318-3	Aniline	LCSD	25	40-140	01	potential low bias
8270E	Batch QC	WG1603318-3	Aniline	LCSD	50	20	01	non-directional bias
8270E	Batch QC	WG1603318-3	4-Chloroaniline	LCSD	34	40-140	01	potential low bias

ORGANICS

VOLATILES

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

SAMPLE RESULTS

Lab ID: L2205987-01
Client ID: HA21-B9(OW)_20220203
Sample Location: BOSTON, MA

Date Collected: 02/03/22 12:30
Date Received: 02/03/22
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 02/07/22 05:45
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205987**Project Number:** 0201602-000**Report Date:** 02/11/22**SAMPLE RESULTS****Lab ID:** L2205987-01**Date Collected:** 02/03/22 12:30**Client ID:** HA21-B9(OW)_20220203**Date Received:** 02/03/22**Sample Location:** BOSTON, MA**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	7.5		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

SAMPLE RESULTS

Lab ID: L2205987-01
Client ID: HA21-B9(OW)_20220203
Sample Location: BOSTON, MA

Date Collected: 02/03/22 12:30
Date Received: 02/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	109		70-130



Project Name: 155 NORTH BEACON STREET

Lab Number: L2205987

Project Number: 0201602-000

Report Date: 02/11/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/07/22 04:52
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1602114-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/07/22 04:52
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1602114-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/07/22 04:52
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1602114-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	110		70-130



Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1602114-3 WG1602114-4								
Methylene chloride	99		92		70-130	7		20
1,1-Dichloroethane	100		95		70-130	5		20
Chloroform	96		90		70-130	6		20
Carbon tetrachloride	99		96		70-130	3		20
1,2-Dichloropropane	96		93		70-130	3		20
Dibromochloromethane	82		82		70-130	0		20
1,1,2-Trichloroethane	83		84		70-130	1		20
Tetrachloroethene	97		95		70-130	2		20
Chlorobenzene	88		87		70-130	1		20
Trichlorofluoromethane	100		98		70-130	2		20
1,2-Dichloroethane	87		85		70-130	2		20
1,1,1-Trichloroethane	98		95		70-130	3		20
Bromodichloromethane	92		87		70-130	6		20
trans-1,3-Dichloropropene	87		85		70-130	2		20
cis-1,3-Dichloropropene	94		92		70-130	2		20
1,1-Dichloropropene	100		98		70-130	2		20
Bromoform	72		75		70-130	4		20
1,1,2,2-Tetrachloroethane	76		77		70-130	1		20
Benzene	100		97		70-130	3		20
Toluene	90		90		70-130	0		20
Ethylbenzene	93		89		70-130	4		20
Chloromethane	100		95		70-130	5		20
Bromomethane	82		83		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1602114-3 WG1602114-4								
Vinyl chloride	94		90		70-130	4		20
Chloroethane	94		87		70-130	8		20
1,1-Dichloroethene	100		96		70-130	4		20
trans-1,2-Dichloroethene	100		94		70-130	6		20
Trichloroethene	100		98		70-130	2		20
1,2-Dichlorobenzene	85		83		70-130	2		20
1,3-Dichlorobenzene	86		84		70-130	2		20
1,4-Dichlorobenzene	85		85		70-130	0		20
Methyl tert butyl ether	89		87		70-130	2		20
p/m-Xylene	90		85		70-130	6		20
o-Xylene	90		85		70-130	6		20
cis-1,2-Dichloroethene	98		94		70-130	4		20
Dibromomethane	85		85		70-130	0		20
1,2,3-Trichloropropane	77		74		70-130	4		20
Styrene	90		85		70-130	6		20
Dichlorodifluoromethane	83		78		70-130	6		20
Acetone	120		150	Q	70-130	22	Q	20
Carbon disulfide	100		100		70-130	0		20
Methyl ethyl ketone	96		100		70-130	4		20
Methyl isobutyl ketone	76		76		70-130	0		20
2-Hexanone	79		85		70-130	7		20
Bromochloromethane	100		94		70-130	6		20
Tetrahydrofuran	86		86		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1602114-3 WG1602114-4								
2,2-Dichloropropane	99		93		70-130	6		20
1,2-Dibromoethane	82		84		70-130	2		20
1,3-Dichloropropane	88		88		70-130	0		20
1,1,1,2-Tetrachloroethane	85		84		70-130	1		20
Bromobenzene	84		82		70-130	2		20
n-Butylbenzene	89		87		70-130	2		20
sec-Butylbenzene	90		88		70-130	2		20
tert-Butylbenzene	89		87		70-130	2		20
o-Chlorotoluene	86		83		70-130	4		20
p-Chlorotoluene	85		83		70-130	2		20
1,2-Dibromo-3-chloropropane	78		80		70-130	3		20
Hexachlorobutadiene	110		110		70-130	0		20
Isopropylbenzene	88		85		70-130	3		20
p-Isopropyltoluene	90		89		70-130	1		20
Naphthalene	85		84		70-130	1		20
n-Propylbenzene	88		86		70-130	2		20
1,2,3-Trichlorobenzene	93		92		70-130	1		20
1,2,4-Trichlorobenzene	94		92		70-130	2		20
1,3,5-Trimethylbenzene	85		83		70-130	2		20
1,2,4-Trimethylbenzene	84		82		70-130	2		20
Diethyl ether	92		90		70-130	2		20
Diisopropyl Ether	93		91		70-130	2		20
Ethyl-Tert-Butyl-Ether	86		86		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1602114-3 WG1602114-4								
Tertiary-Amyl Methyl Ether	84		83		70-130	1		20
1,4-Dioxane	68	Q	84		70-130	21	Q	20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		89		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	98		95		70-130
Dibromofluoromethane	102		98		70-130

SEMIVOLATILES

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

SAMPLE RESULTS

Lab ID: L2205987-01
Client ID: HA21-B9(OW)_20220203
Sample Location: BOSTON, MA

Date Collected: 02/03/22 12:30
Date Received: 02/03/22
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 141,8270E
Analytical Date: 02/11/22 04:04
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/10/22 01:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
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-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
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Biphenyl	ND		ug/l	0.73	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

SAMPLE RESULTS

Lab ID: L2205987-01
Client ID: HA21-B9(OW)_20220203
Sample Location: BOSTON, MA

Date Collected: 02/03/22 12:30
Date Received: 02/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
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
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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		15-110
Phenol-d6	38		15-110
Nitrobenzene-d5	64		30-130
2-Fluorobiphenyl	43		30-130
2,4,6-Tribromophenol	50		15-110
4-Terphenyl-d14	48		30-130

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

SAMPLE RESULTS

Lab ID: L2205987-01
Client ID: HA21-B9(OW)_20220203
Sample Location: BOSTON, MA

Date Collected: 02/03/22 12:30
Date Received: 02/03/22
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 141,8270E-SIM
Analytical Date: 02/11/22 12:04
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 02/10/22 01:09

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

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205987**Project Number:** 0201602-000**Report Date:** 02/11/22**SAMPLE RESULTS****Lab ID:** L2205987-01**Date Collected:** 02/03/22 12:30**Client ID:** HA21-B9(OW)_20220203**Date Received:** 02/03/22**Sample Location:** BOSTON, MA**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		15-110
Phenol-d6	40		15-110
Nitrobenzene-d5	61		30-130
2-Fluorobiphenyl	60		30-130
2,4,6-Tribromophenol	61		15-110
4-Terphenyl-d14	63		30-130

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E
Analytical Date: 02/10/22 22:07
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/10/22 01:06

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG1603318-1					
Acenaphthene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	2.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
2-Chloronaphthalene	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
Fluoranthene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	2.0	--
Hexachloroethane	ND		ug/l	2.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	2.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Benzo(a)anthracene	ND		ug/l	2.0	--
Benzo(a)pyrene	ND		ug/l	2.0	--



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E
Analytical Date: 02/10/22 22:07
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/10/22 01:06

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG1603318-1					
Benzo(b)fluoranthene	ND		ug/l	2.0	--
Benzo(k)fluoranthene	ND		ug/l	2.0	--
Chrysene	ND		ug/l	2.0	--
Acenaphthylene	ND		ug/l	2.0	--
Anthracene	ND		ug/l	2.0	--
Benzo(ghi)perylene	ND		ug/l	2.0	--
Fluorene	ND		ug/l	2.0	--
Phenanthrene	ND		ug/l	2.0	--
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	--
Pyrene	ND		ug/l	2.0	--
Biphenyl	ND		ug/l	0.73	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
2-Methylnaphthalene	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
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	--
Pentachlorophenol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E
 Analytical Date: 02/10/22 22:07
 Analyst: CMM

Extraction Method: EPA 3510C
 Extraction Date: 02/10/22 01:06

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG1603318-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		15-110
Phenol-d6	33		15-110
Nitrobenzene-d5	54		30-130
2-Fluorobiphenyl	43		30-130
2,4,6-Tribromophenol	34		15-110
4-Terphenyl-d14	46		30-130



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E-SIM
Analytical Date: 02/11/22 11:45
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 02/10/22 01:09

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG1603319-1					
Acenaphthene	ND		ug/l	0.10	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.10	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.10	--
Benzo(a)anthracene	ND		ug/l	0.10	--
Benzo(a)pyrene	ND		ug/l	0.10	--
Benzo(b)fluoranthene	ND		ug/l	0.10	--
Benzo(k)fluoranthene	ND		ug/l	0.10	--
Chrysene	ND		ug/l	0.10	--
Acenaphthylene	ND		ug/l	0.10	--
Anthracene	ND		ug/l	0.10	--
Benzo(ghi)perylene	ND		ug/l	0.10	--
Fluorene	ND		ug/l	0.10	--
Phenanthrene	ND		ug/l	0.10	--
Dibenzo(a,h)anthracene	ND		ug/l	0.10	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	--
Pyrene	ND		ug/l	0.10	--
2-Methylnaphthalene	ND		ug/l	0.10	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8270E-SIM
 Analytical Date: 02/11/22 11:45
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 02/10/22 01:09

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG1603319-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		15-110
Phenol-d6	33		15-110
Nitrobenzene-d5	54		30-130
2-Fluorobiphenyl	53		30-130
2,4,6-Tribromophenol	37		15-110
4-Terphenyl-d14	53		30-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1603318-2 WG1603318-3								
Acenaphthene	54		55		40-140	2		20
1,2,4-Trichlorobenzene	46		46		40-140	0		20
Hexachlorobenzene	48		51		40-140	6		20
Bis(2-chloroethyl)ether	49		51		40-140	4		20
2-Chloronaphthalene	46		46		40-140	0		20
1,2-Dichlorobenzene	47		50		40-140	6		20
1,3-Dichlorobenzene	46		49		40-140	6		20
1,4-Dichlorobenzene	48		51		40-140	6		20
3,3'-Dichlorobenzidine	31	Q	36	Q	40-140	15		20
2,4-Dinitrotoluene	52		57		40-140	9		20
2,6-Dinitrotoluene	47		52		40-140	10		20
Azobenzene	54		56		40-140	4		20
Fluoranthene	48		52		40-140	8		20
4-Bromophenyl phenyl ether	46		49		40-140	6		20
Bis(2-chloroisopropyl)ether	51		51		40-140	0		20
Bis(2-chloroethoxy)methane	54		54		40-140	0		20
Hexachlorobutadiene	39	Q	40		40-140	3		20
Hexachloroethane	52		56		40-140	7		20
Isophorone	47		50		40-140	6		20
Naphthalene	48		48		40-140	0		20
Nitrobenzene	76		82		40-140	8		20
Bis(2-ethylhexyl)phthalate	57		63		40-140	10		20
Butyl benzyl phthalate	54		55		40-140	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1603318-2 WG1603318-3								
Di-n-butylphthalate	48		52		40-140	8		20
Di-n-octylphthalate	54		56		40-140	4		20
Diethyl phthalate	52		57		40-140	9		20
Dimethyl phthalate	44		48		40-140	9		20
Benzo(a)anthracene	52		58		40-140	11		20
Benzo(a)pyrene	55		54		40-140	2		20
Benzo(b)fluoranthene	63		65		40-140	3		20
Benzo(k)fluoranthene	58		56		40-140	4		20
Chrysene	53		58		40-140	9		20
Acenaphthylene	43		44		40-140	2		20
Anthracene	50		54		40-140	8		20
Benzo(ghi)perylene	58		67		40-140	14		20
Fluorene	52		53		40-140	2		20
Phenanthrene	50		55		40-140	10		20
Dibenzo(a,h)anthracene	54		64		40-140	17		20
Indeno(1,2,3-cd)pyrene	51		58		40-140	13		20
Pyrene	48		50		40-140	4		20
Biphenyl	46		45		40-140	2		20
Aniline	15	Q	25	Q	40-140	50	Q	20
4-Chloroaniline	28	Q	34	Q	40-140	19		20
Dibenzofuran	51		52		40-140	2		20
2-Methylnaphthalene	46		45		40-140	2		20
Acetophenone	51		52		40-140	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1603318-2 WG1603318-3								
2,4,6-Trichlorophenol	42		45		30-130	7		20
2-Chlorophenol	52		54		30-130	4		20
2,4-Dichlorophenol	51		53		30-130	4		20
2,4-Dimethylphenol	37		43		30-130	15		20
2-Nitrophenol	58		59		30-130	2		20
4-Nitrophenol	62		68		30-130	9		20
2,4-Dinitrophenol	68		72		30-130	6		20
Pentachlorophenol	38		42		30-130	10		20
Phenol	41		44		30-130	7		20
2-Methylphenol	49		50		30-130	2		20
3-Methylphenol/4-Methylphenol	51		54		30-130	6		20
2,4,5-Trichlorophenol	45		48		30-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	48		51		15-110
Phenol-d6	40		44		15-110
Nitrobenzene-d5	54		58		30-130
2-Fluorobiphenyl	42		42		30-130
2,4,6-Tribromophenol	51		53		15-110
4-Terphenyl-d14	45		47		30-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG1603319-2 WG1603319-3								
Acenaphthene	57		56		40-140	2		20
2-Chloronaphthalene	58		57		40-140	2		20
Fluoranthene	61		62		40-140	2		20
Hexachlorobutadiene	53		51		40-140	4		20
Naphthalene	55		54		40-140	2		20
Benzo(a)anthracene	62		62		40-140	0		20
Benzo(a)pyrene	56		57		40-140	2		20
Benzo(b)fluoranthene	64		61		40-140	5		20
Benzo(k)fluoranthene	57		63		40-140	10		20
Chrysene	58		59		40-140	2		20
Acenaphthylene	58		57		40-140	2		20
Anthracene	59		61		40-140	3		20
Benzo(ghi)perylene	66		68		40-140	3		20
Fluorene	60		60		40-140	0		20
Phenanthrene	57		58		40-140	2		20
Dibenzo(a,h)anthracene	69		72		40-140	4		20
Indeno(1,2,3-cd)pyrene	64		66		40-140	3		20
Pyrene	61		62		40-140	2		20
2-Methylnaphthalene	57		56		40-140	2		20
Pentachlorophenol	66		70		30-130	6		20
Hexachlorobenzene	58		58		40-140	0		20
Hexachloroethane	50		47		40-140	6		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205987**Report Date:** 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG1603319-2 WG1603319-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	48		47		15-110
Phenol-d6	41		42		15-110
Nitrobenzene-d5	59		57		30-130
2-Fluorobiphenyl	57		57		30-130
2,4,6-Tribromophenol	62		64		15-110
4-Terphenyl-d14	64		66		30-130

PETROLEUM HYDROCARBONS

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205987**Project Number:** 0201602-000**Report Date:** 02/11/22**SAMPLE RESULTS**

Lab ID: L2205987-01

Date Collected: 02/03/22 12:30

Client ID: HA21-B9(OW)_20220203

Date Received: 02/03/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 131, VPH-18-2.1

Analytical Date: 02/06/22 01:55

Analyst: KJD

Trap: EST, Carboxen 1000&1001

Analytical Column: Restek, RTX-502.2,
105m, 0.53ID, 3um**Quality Control Information**

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved
Container

Sample Temperature upon receipt:

Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	ND		ug/l	100	--	1
C9-C12 Aliphatics	ND		ug/l	100	--	1
C9-C10 Aromatics	ND		ug/l	100	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	81		70-130
2,5-Dibromotoluene-FID	84		70-130



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205987**Project Number:** 0201602-000**Report Date:** 02/11/22**SAMPLE RESULTS**

Lab ID: L2205987-01

Client ID: HA21-B9(OW)_20220203

Sample Location: BOSTON, MA

Date Collected: 02/03/22 12:30

Date Received: 02/03/22

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 135,EPH-19-2.1

Analytical Date: 02/09/22 11:34

Analyst: MEO

Extraction Method: EPA 3510C

Extraction Date: 02/08/22 17:26

Cleanup Method1: EPH-19-2.1

Cleanup Date1: 02/09/22

Quality Control Information

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved
Container

Sample Temperature upon receipt:

Received on Ice

Sample Extraction method:

Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	69		40-140
o-Terphenyl	57		40-140
2-Fluorobiphenyl	72		40-140
2-Bromonaphthalene	72		40-140



Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205987**Project Number:** 0201602-000**Report Date:** 02/11/22

Method Blank Analysis Batch Quality Control

Analytical Method: 131, VPH-18-2.1

Analytical Date: 02/05/22 18:57

Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1602563-4					
C5-C8 Aliphatics	ND		ug/l	100	--
C9-C12 Aliphatics	ND		ug/l	100	--
C9-C10 Aromatics	ND		ug/l	100	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	84		70-130
2,5-Dibromotoluene-FID	86		70-130



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 135,EPH-19-2.1
Analytical Date: 02/09/22 07:26
Analyst: SC

Extraction Method: EPA 3510C
Extraction Date: 02/08/22 16:17
Cleanup Method: EPH-19-2.1
Cleanup Date: 02/09/22

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1602743-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	66		40-140
o-Terphenyl	55		40-140
2-Fluorobiphenyl	76		40-140
2-Bromonaphthalene	76		40-140



Lab Control Sample Analysis

Batch Quality Control

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1602563-2 WG1602563-3								
C5-C8 Aliphatics	105		104		70-130	1		25
C9-C12 Aliphatics	111		109		70-130	2		25
C9-C10 Aromatics	100		99		70-130	1		25
Benzene	103		102		70-130	1		25
Toluene	103		102		70-130	1		25
Ethylbenzene	104		103		70-130	1		25
p/m-Xylene	104		102		70-130	2		25
o-Xylene	104		103		70-130	1		25
Methyl tert butyl ether	106		106		70-130	0		25
Naphthalene	99		102		70-130	3		25
1,2,4-Trimethylbenzene	100		99		70-130	1		25
Pentane	98		99		70-130	1		25
2-Methylpentane	107		106		70-130	1		25
2,2,4-Trimethylpentane	109		108		70-130	1		25
n-Nonane	112		111		30-130	1		25
n-Decane	110		108		70-130	2		25
n-Butylcyclohexane	111		109		70-130	2		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	100		99		70-130
2,5-Dibromotoluene-FID	103		101		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 155 NORTH BEACON STREET

Project Number: 0201602-000

Lab Number: L2205987

Report Date: 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1602743-2 WG1602743-3								
C9-C18 Aliphatics	47		46		40-140	2		25
C19-C36 Aliphatics	74		77		40-140	4		25
C11-C22 Aromatics	67		69		40-140	3		25
Naphthalene	50		46		40-140	8		25
2-Methylnaphthalene	56		55		40-140	2		25
Acenaphthylene	59		61		40-140	3		25
Acenaphthene	64		66		40-140	3		25
Fluorene	62		64		40-140	3		25
Phenanthrene	62		67		40-140	8		25
Anthracene	60		64		40-140	6		25
Fluoranthene	64		69		40-140	8		25
Pyrene	65		69		40-140	6		25
Benzo(a)anthracene	65		70		40-140	7		25
Chrysene	66		71		40-140	7		25
Benzo(b)fluoranthene	64		69		40-140	8		25
Benzo(k)fluoranthene	63		68		40-140	8		25
Benzo(a)pyrene	64		68		40-140	6		25
Indeno(1,2,3-cd)Pyrene	63		67		40-140	6		25
Dibenzo(a,h)anthracene	67		72		40-140	7		25
Benzo(ghi)perylene	64		68		40-140	6		25

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 155 NORTH BEACON STREET**Project Number:** 0201602-000**Lab Number:** L2205987**Report Date:** 02/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1602743-2 WG1602743-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	68		65		40-140
o-Terphenyl	57		60		40-140
2-Fluorobiphenyl	75		77		40-140
2-Bromonaphthalene	74		76		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205987**Project Number:** 0201602-000**Report Date:** 02/11/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

D Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205987-01A	Vial HCl preserved	D	NA		3.9	Y	Absent		MCP-8260-21(14)
L2205987-01B	Vial HCl preserved	D	NA		3.9	Y	Absent		MCP-8260-21(14)
L2205987-01C	Vial HCl preserved	D	NA		3.9	Y	Absent		MCP-8260-21(14)
L2205987-01D	Vial HCl preserved	D	NA		3.9	Y	Absent		VPH-18(14)
L2205987-01E	Vial HCl preserved	D	NA		3.9	Y	Absent		VPH-18(14)
L2205987-01F	Vial HCl preserved	D	NA		3.9	Y	Absent		VPH-18(14)
L2205987-01G	Amber 250ml unpreserved	D	7	7	3.9	Y	Absent		MCP-8270SIM-21-LVI(7),MCP-8270-21-LVI(7)
L2205987-01H	Amber 250ml unpreserved	D	7	7	3.9	Y	Absent		MCP-8270SIM-21-LVI(7),MCP-8270-21-LVI(7)
L2205987-01J	Amber 1000ml HCl preserved	D	<2	<2	3.9	Y	Absent		EPH-20(14)
L2205987-01K	Amber 1000ml HCl preserved	D	<2	<2	3.9	Y	Absent		EPH-20(14)

Project Name: 155 NORTH BEACON STREET**Lab Number:** L2205987**Project Number:** 0201602-000**Report Date:** 02/11/22

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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.

Report Format: Data Usability Report

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Footnotes

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

Data Qualifiers

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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 155 NORTH BEACON STREET
Project Number: 0201602-000

Lab Number: L2205987
Report Date: 02/11/22

REFERENCES

- 131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.
- 135 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, December 2019, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, March 1, 2020.
- 141 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 and IIB, November 2021.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **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 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

Method Blank Summary Form 4 Volatiles

Client	: Haley & Aldrich, Inc.	Lab Number	: L2205987
Project Name	: 155 NORTH BEACON STREET	Project Number	: 0201602-000
Lab Sample ID	: WG1602114-5	Lab File ID	: J220207A04
Instrument ID	: JACK1		
Matrix	: WATER	Analysis Date	: 02/07/22 04:52

Client Sample No.	Lab Sample ID	Analysis Date
WG1602114-3LCS	WG1602114-3	02/07/22 03:32
WG1602114-4LCSD	WG1602114-4	02/07/22 03:59
HA21-B9(OW)_20220203	L2205987-01	02/07/22 05:45

Calibration Verification Summary

Form 7

Volatiles

Client : Haley & Aldrich, Inc.
 Project Name : 155 NORTH BEACON STREET
 Instrument ID : JACK1
 Lab File ID : J220207A01
 Sample No : WG1602114-2
 Channel :

Lab Number : L2205987
 Project Number : 0201602-000
 Calibration Date : 02/07/22 03:32
 Init. Calib. Date(s) : 01/13/22 01/13/22
 Init. Calib. Times : 04:34 09:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	99	0
Dichlorodifluoromethane	0.632	0.523	-	17.2	20	77	0
Chloromethane	0.625	0.626	-	-0.2	20	88	0
Vinyl chloride	0.577	0.542	-	6.1	20	81	0
Bromomethane	0.288	0.236	-	18.1	20	84	0
Chloroethane	0.354	0.331	-	6.5	20	81	0
Trichlorofluoromethane	0.815	0.829	-	-1.7	20	92	0
Ethyl ether	0.309	0.284	-	8.1	20	85	0
1,1-Dichloroethene	0.476	0.485	-	-1.9	20	95	0
Carbon disulfide	1.296	1.339	-	-3.3	20	92	0
Methylene chloride	0.559	0.556	-	0.5	20	92	0
Acetone	0.159	0.191	-	-20.1*	20	113	0
trans-1,2-Dichloroethene	0.523	0.524	-	-0.2	20	92	0
Methyl tert-butyl ether	1.549	1.377	-	11.1	20	84	0
Diisopropyl ether	1.9	1.771	-	6.8	20	87	0
1,1-Dichloroethane	1.033	1.03	-	0.3	20	89	-0.01
Ethyl tert-butyl ether	1.685	1.442	-	14.4	20	83	0
cis-1,2-Dichloroethene	0.59	0.581	-	1.5	20	90	0
2,2-Dichloropropane	0.864	0.853	-	1.3	20	93	-0.01
Bromochloromethane	0.282	0.282	-	0	20	92	-0.01
Chloroform	0.984	0.942	-	4.3	20	85	0
Carbon tetrachloride	0.755	0.746	-	1.2	20	93	0
Tetrahydrofuran	0.195	0.167	-	14.4	20	83	0
Dibromofluoromethane	0.268	0.274	-	-2.2	20	101	0
1,1,1-Trichloroethane	0.853	0.837	-	1.9	20	90	-0.01
2-Butanone	0.259	0.25	-	3.5	20	89	-0.01
1,1-Dichloropropene	0.723	0.735	-	-1.7	20	94	0
Benzene	2.114	2.115	-	-0	20	93	0
tert-Amyl methyl ether	1.48	1.248	-	15.7	20	82	0
1,2-Dichloroethane-d4	0.354	0.323	-	8.8	20	91	-0.01
1,2-Dichloroethane	0.777	0.68	-	12.5	20	81	-0.01
Trichloroethene	0.543	0.549	-	-1.1	20	92	-0.01
Dibromomethane	0.358	0.303	-	15.4	20	82	0
1,2-Dichloropropane	0.577	0.556	-	3.6	20	88	-0.01
Bromodichloromethane	0.79	0.723	-	8.5	20	85	-0.01
1,4-Dioxane	0.00252	0.00172*	-	31.7*	20	66	-0.01
cis-1,3-Dichloropropene	0.925	0.875	-	5.4	20	87	0
Chlorobenzene-d5	1	1	-	0	20	103	0
Toluene-d8	1.243	1.202	-	3.3	20	100	-0.01
Toluene	1.623	1.468	-	9.6	20	90	-0.01
4-Methyl-2-pentanone	0.251	0.191	-	23.9*	20	78	0
Tetrachloroethene	0.725	0.702	-	3.2	20	100	-0.01
trans-1,3-Dichloropropene	1.003	0.869	-	13.4	20	86	-0.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Haley & Aldrich, Inc.
 Project Name : 155 NORTH BEACON STREET
 Instrument ID : JACK1
 Lab File ID : J220207A01
 Sample No : WG1602114-2
 Channel :

Lab Number : L2205987
 Project Number : 0201602-000
 Calibration Date : 02/07/22 03:32
 Init. Calib. Date(s) : 01/13/22 01/13/22
 Init. Calib. Times : 04:34 09:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,1,2-Trichloroethane	0.473	0.393	-	16.9	20	83	0
Chlorodibromomethane	0.696	0.574	-	17.5	20	86	-.01
1,3-Dichloropropane	0.979	0.858	-	12.4	20	89	0
1,2-Dibromoethane	0.596	0.492	-	17.4	20	85	-.02
2-Hexanone	0.526	0.418	-	20.5*	20	78	0
Chlorobenzene	1.895	1.677	-	11.5	20	90	0
Ethylbenzene	3.216	2.978	-	7.4	20	91	0
1,1,1,2-Tetrachloroethane	0.678	0.574	-	15.3	20	89	0
p/m Xylene	1.28	1.15	-	10.2	20	91	-.01
o Xylene	1.252	1.107	-	11.6	20	89	-.01
Styrene	2.143	1.899	-	11.4	20	90	-.01
1,4-Dichlorobenzene-d4	1	1	-	0	20	112	-.01
Bromoform	0.838	0.607	-	27.6*	20	85	-.02
Isopropylbenzene	6.16	5.402	-	12.3	20	93	0
4-Bromofluorobenzene	0.905	0.884	-	2.3	20	104	-.01
Bromobenzene	1.551	1.298	-	16.3	20	93	-.01
n-Propylbenzene	7.242	6.4	-	11.6	20	93	0
1,1,2,2-Tetrachloroethane	1.342	1.027	-	23.5*	20	84	0
2-Chlorotoluene	4.879	4.181	-	14.3	20	91	0
1,3,5-Trimethylbenzene	5.007	4.268	-	14.8	20	92	-.01
1,2,3-Trichloropropane	1.169	0.898	-	23.2*	20	87	0
4-Chlorotoluene	4.485	3.817	-	14.9	20	92	-.01
tert-Butylbenzene	4.409	3.94	-	10.6	20	96	0
1,2,4-Trimethylbenzene	4.994	4.214	-	15.6	20	92	0
sec-Butylbenzene	6.573	5.944	-	9.6	20	97	0
p-Isopropyltoluene	5.554	4.989	-	10.2	20	97	0
1,3-Dichlorobenzene	2.932	2.537	-	13.5	20	93	-.01
1,4-Dichlorobenzene	2.926	2.478	-	15.3	20	93	0
n-Butylbenzene	4.692	4.19	-	10.7	20	96	-.01
1,2-Dichlorobenzene	2.728	2.315	-	15.1	20	93	0
1,2-Dibromo-3-chloropropan	0.258	0.202	-	21.7*	20	89	0
Hexachlorobutadiene	0.69	0.753	-	-9.1	20	121	0
1,2,4-Trichlorobenzene	1.62	1.518	-	6.3	20	100	0
Naphthalene	4.489	3.811	-	15.1	20	94	0
1,2,3-Trichlorobenzene	1.441	1.338	-	7.1	20	100	0

* Value outside of QC limits.

