HALEY & ALDRICH, INC.
465 Medford Street, Suite 2200
Boston, MA 02129
(617) 886.7400

21 April 2021
File No. 134476-005

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

Attention: EPA/OEP RGP Coordinator

Subject: NPDES RGP NOI Application
Temporary Construction Dewatering
40 Thorndike Street Redevelopment
Cambridge, 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 40 Thorndike Street redevelopment located in Cambridge, Massachusetts. On behalf of the project owner, LMP GP Holdings, LLC, c/o Leggat McCall Properties, and the Operator/General Contractor, John Moriarty & Associates, 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 (Activity Category III) under the NPDES RGP.

Refer to Figure 1 for a Project Locus. We anticipate temporary construction dewatering will be conducted, as necessary, during utility and below-grade construction. A copy of the completed NOI form is enclosed as Appendix A.

EXISTING SITE CONDITIONS

The site is located at 40 Thorndike Street in Cambridge, Massachusetts, within the limits of the former Cambridge Superior Courthouse and Middlesex Jail building. The site is bordered by Thorndike Street to the north, Second Street to the east, Spring Street to the south, and Third Street to the west; refer to Figure 2. The existing building occupies the majority of the site and consists of a 22-story tower surrounded by a 5-story low rise structure with two levels of below-grade space finished at approximately El. 6.5[1]. The total building footprint is approximately 38,000 square feet and is

1 Elevations are in feet and reference Cambridge City Base (CCB) datum, where El. 0.0 CCB is 10.84 ft below the National Geodetic Vertical (NGVD) Datum of 1929.

understood to be founded on precast prestressed reinforced concrete piles. Surface grades surrounding the perimeter of the site range from approximately El. 20 to El. 35; a surface drive lane is located off Second Street that ramps down to approximately El. 18 to provide access into the existing below-grade space.

PROPOSED CONSTRUCTION

Redevelopment includes significant interior renovations and conversion of the two below-grade levels to garage parking and mechanical space. No new below-grade space or foundation construction within the building is planned, nor is there any planned expansion laterally beyond the existing building footprint. The redevelopment will include site improvements and utility connections around the building perimeter. It is anticipated that excavations for the proposed redevelopment, such as for deep utilities, may extend below site groundwater levels, anticipated to be encountered at about El. 10 to El. 12. As a result, dewatering may be necessary to control groundwater, seepage, precipitation, surface water runoff, and construction-generated water to enable below-grade construction activities in-the-dry. Temporary construction dewatering is anticipated to start in May 2021 and continue through approximately December 2022.

Note that prior to the start of redevelopment of the property, water had collected in the basement of the building. Off-site management of water within the basement will be performed separately by others and will not be managed under the NPDES RGP.

SITE HISTORY

Haley & Aldrich assessed past usage of the property and adjoining properties through a review of Sanborn Fire Insurance Maps (dated 1888 to 2005) and aerial photographs (dated 1938 to 2012). The earliest historic records indicated that in 1873, the property was partially developed as a jailhouse for Middlesex County; the southwestern side of the property was comprised of cells for men, and in the northeastern side there was a prison for women, as well as laundry facilities. In the southeastern portion of the site there appeared to be a brush factory. By 1900, a coal pit and heating room can be seen at the center of the site. By 1950, the southwestern jail cells had been converted to the “masters & auditors” court rooms. Historic structural drawings place construction of the building that currently occupies the site around 1972, which is consistent with other records for the property.

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 indicate that material generally does *not* contain compounds at concentrations above the applicable RCS-1 Reportable Concentrations for soil under the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. The exception is one (1) soil sample collected from a discrete planter box location (PB-W4) where lead was detected in soil at concentrations above RCS-1 criteria (1,090 mg/kg vs. 200 mg/kg). The estimated quantity of material generated from this concrete planter box is estimated to be less than 20 cubic yards (cy); accordingly, the material will be managed under a Limited Removal Action (LRA, 310 CMR 40.0318) and does *not* constitute a reporting condition under the MCP. The site is *not* a Massachusetts Department of Environmental Protection (MassDEP) Disposal Site.

TEMPORARY CONSTRUCTION DEWATERING NOTICE OF INTENT (NOI)

One (1) groundwater sample was obtained from observation well HA-02 (OW) on 9 March 2021. The location of the observation well is shown on Figure 2. The sample was submitted to Alpha Analytical (Alpha) of Westborough, Massachusetts for analysis of the following NPDES RGP parameters: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total metals (including antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver and zinc), hexavalent and trivalent chromium, total petroleum hydrocarbons (TPH), ethanol, polychlorinated biphenyls (PCBs), ammonia, total chloride, total residual chlorine (TRC), total cyanide, total phenols, total suspended solids (TSS), total hardness and pH. Measurements of temperature were obtained in the field on the sampling date indicated above. Refer to Table I for a summary of the groundwater analytical data. The results did not indicate any concentrations of constituents above applicable MCP RCGW-2 Reportable Concentrations or NPDES RGP Effluent Limitations.

When excavations to construct proposed 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 25 gallons per minute (gpm). 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. Total flow will be measured with a flow meter/totalizer. If necessary to meet NPDES RGP 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 3 for a schematic of the proposed treatment system.

Discharge of dewatering effluent will be to the local storm drain operated by the City of Cambridge beneath the streets surrounding the property, after which the effluent will discharge at outfall D02 to the Lechmere Canal, which ultimately reaches the Charles River. The proposed discharge route is shown on Figure 4. Appendix B includes a copy of the City of Cambridge Permit to Dewater.

RECEIVING WATER QUALITY INFORMATION AND DILUTION FACTOR

On 9 March 2021, Haley & Aldrich also collected a receiving water sample from the Lechmere Canal at outfall D02 shown on Figure 4 using a disposable polyethylene bailer. The surface water sample was submitted to Alpha for chemical analysis of pH, ammonia, total hardness, and total 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. Additionally, it is our understanding that since the

Lechmere Canal does not receive enough flow, the seven-day-ten-year (7Q10) flow is not available and a dilution factor for the Lechmere Canal is not permissible.

EFFLUENT CRITERIA 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.

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. 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 REQUIREMENTS

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 Old Middlesex County Superior Courthouse, built in 1814, is located to the north of the project site across Thorndike Street at 90 Third Street. This building is part of the East Cambridge 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:
LMP GP Holdings, LLC
c/o Leggat McCall Properties
10 Post Office Square
Boston, Massachusetts 02109
Attn: Robert Greetham
Title: Vice President

Operator:
John Moriarty & Associates, Inc.
3 Church Street, Suite 2
Winchester, Massachusetts 01890
Attn: Eric Miller
Title: Project Manager

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 Permit to Dewater application submitted to the City of Cambridge. Appendix C includes tabs from the WQBEL calculation spreadsheet for reference. 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 report is 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.

Jonathan M. Thibault
Technical Specialist

Joel S. Mooney, P.E., L.S.P.
Principal | Senior Vice President

Attachments:

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

c: LMP GP Holdings, LLC, c/o Leggat McCall Properties; Attn: Robert Greetham
John Moriarty & Associates, Inc.; Attn: Eric Miller
City of Cambridge Department of Public Works; Attn: Jim Wilcox
Massachusetts Department of Environmental Protection; Attn: Catherine Vakalopoulos

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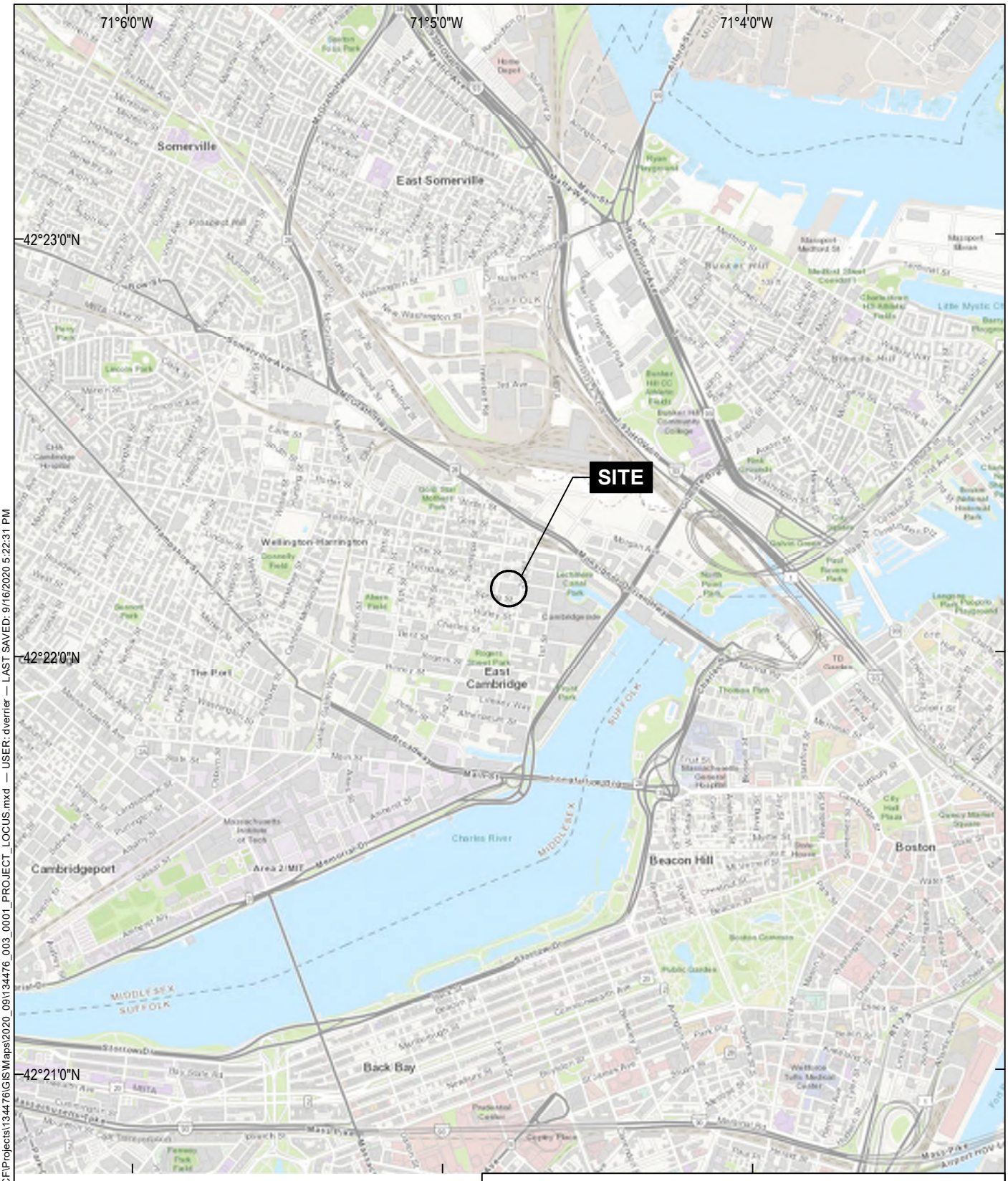
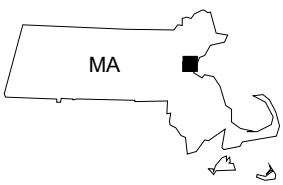
TABLE I
SUMMARY OF WATER QUALITY DATA
40 THORNDIKE STREET
CAMBRIDGE, MASSACHUSETTS
FILE NO. 134476-005

Location Name	2017 NPDES RGP Project-Specific Effluent Limitations	2014 MassDEP MCP RCGW-2 Reportable Concentrations	HA-02 (OW)	LECHMERE CANAL OUTFALL D02
Sample Name			HA-02_2021-0309	RECEIVING WATER_2021-0309
Sample Date			3/9/2021	3/9/2021
Lab Sample ID			L2111682-01	L2111682-02
Well Screen Interval (ft, BCB) (Note 3)			11.9 to 2	NA
Groundwater Elevation (ft, BCB) (Note 4)			12.3	NA
Sample Type			Groundwater	Receiving Water
Volatile Organic Compounds (ug/L)				
1,1,1-Trichloroethane	200	4000	ND(2)	-
1,1,2-Trichloroethane	5	900	ND(1.5)	-
1,1-Dichloroethane	70	2000	ND(1.5)	-
1,1-Dichloroethene	3.2	80	ND(1)	-
1,2-Dibromoethane (Ethylene dibromide)	0.05	2	ND(0.01)	-
1,2-Dichlorobenzene	600	2000	ND(5)	-
1,2-Dichloroethane	5	5	ND(1.5)	-
1,3-Dichlorobenzene	320	6000	ND(5)	-
1,4-Dichlorobenzene	5	60	ND(5)	-
Acetone	7970	50000	ND(10)	-
Benzene	5	1000	ND(1)	-
Carbon tetrachloride	4.4	2	ND(1)	-
cis-1,2-Dichloroethene	70	20	ND(1)	-
Ethylbenzene	NA	5000	ND(1)	-
Methylene chloride	4.6	2000	ND(1)	-
Methyl tert butyl ether	70	5000	ND(10)	-
o-xylene	NA	3000	ND(1)	-
p/m-Xylene	NA	3000	ND(2)	-
Tert-Butyl alcohol	120	NA	ND(100)	-
Tertiary-Amyl methyl ether	90	NA	ND(20)	-
Tetrachloroethene	5	50	ND(1)	-
Toluene	NA	40000	ND(1)	-
Trichloroethene	5	5	ND(1)	-
Vinyl chloride	2	2	ND(1)	-
Xylenes, Total	NA	3000	ND(1)	-
Total BTEX	100	NA	ND	-
SUM of Volatile Organic Compounds	NA	NA	ND	-
Volatile Organic Compounds by SIM (ug/L)				
1,4-Dioxane	200	6000	ND(5)	-
Semi-Volatile Organic Compounds (ug/L)				
Bis(2-ethylhexyl)phthalate (Diethylhexyl phthalate)	101	50000	ND(2.2)	-
Butyl benzyl phthalate	NA	10000	ND(5)	-
Di-n-butylphthalate	NA	5000	ND(5)	-
Di-n-octylphthalate	NA	100000	ND(5)	-
Diethyl phthalate	NA	9000	ND(5)	-
Dimethyl phthalate	NA	50000	ND(5)	-
Total Phthalates	190	NA	ND	-
SUM of Semi-Volatile Organic Compounds	NA	NA	ND	-
Semi-Volatile Organic Compounds by SIM (ug/L)				
Acenaphthene	NA	6000	ND(0.1)	-
Acenaphthylene	NA	40	ND(0.1)	-
Anthracene	NA	30	ND(0.1)	-
Benzo(a)anthracene	1	1000	ND(0.1)	-
Benzo(a)pyrene	1	500	ND(0.1)	-
Benzo(b)fluoranthene	1	400	ND(0.1)	-
Benzo(ghi)perylene	NA	20	ND(0.1)	-
Benzo(k)fluoranthene	1	100	ND(0.1)	-
Chrysene	1	70	ND(0.1)	-
Dibenzo(a,h)anthracene	1	40	ND(0.1)	-
Fluoranthene	NA	200	ND(0.1)	-
Fluorene	NA	40	ND(0.1)	-
Indeno(1,2,3-cd)pyrene	1	100	ND(0.1)	-
Naphthalene	20	700	ND(0.1)	-
Pentachlorophenol	1	200	ND(1)	-
Phenanthrene	NA	10000	ND(0.1)	-
Pyrene	NA	20	ND(0.1)	-
Total Group I Polycyclic Aromatic Hydrocarbons	1	NA	ND	-
Total Group II Polycyclic Aromatic Hydrocarbons	100	NA	ND	-
SUM of Semi-Volatile Organic Compounds by SIM	NA	NA	ND	-
Ethanol (mg/L)	Report	NA	ND(20)	-
Total Petroleum Hydrocarbons (mg/L)	5	5	ND(4)	-
Total Metals (ug/L)				
Antimony, Total	206	8000	ND(4)	ND(4)
Arsenic, Total	104	900	ND(1)	ND(1)
Cadmium, Total	10.2	4	ND(0.2)	ND(0.2)
Chromium, Total	323	300	ND(1)	ND(1)
Chromium III (Trivalent), Total	323	600	ND(10)	-
Chromium VI (Hexavalent), Total	323	300	ND(10)	ND(10)
Copper, Total	242	100000	ND(1)	2.01
Iron, Total	5000	NA	205	329
Lead, Total	160	10	ND(1)	ND(1)
Mercury, Total	0.739	20	ND(0.2)	ND(0.2)
Nickel, Total	1450	200	ND(2)	ND(2)
Selenium, Total	235.8	100	ND(5)	ND(5)
Silver, Total	35.1	7	ND(0.4)	ND(0.4)
Zinc, Total	420	900	ND(10)	16.02
Polychlorinated Biphenyls (ug/L)				
Aroclor 1016	NA	5	ND(0.25)	-
Aroclor 1221	NA	5	ND(0.25)	-
Aroclor 1232	NA	5	ND(0.25)	-
Aroclor 1242	NA	5	ND(0.25)	-
Aroclor 1248	NA	5	ND(0.25)	-
Aroclor 1254	NA	5	ND(0.25)	-
Aroclor 1260	NA	5	ND(0.2)	-
SUM of Polychlorinated Biphenyls	0.000064	NA	ND	-
Other				
Nitrogen, Ammonia (mg/L)	Report	NA	2.17	0.112
Chloride (mg/L)	Report	NA	1430	-
Chlorine, Total Residual (mg/L)	0.011 (Note 7)	NA	**ND(0.02)**	-
Cyanide, Total (mg/L)	178	30	0.005	-
Phenols, Total (mg/L)	1.08	NA	ND(0.03)	-
Solids, Total Suspended (mg/L)	30	NA	ND(5)	-
Hardness, Total (mg/L)	NA	NA	611	76.3
pH (SU) (Note 5)	6.5 to 8.3	NA	7.3	7.6
Temperature (°C) (Note 6)	28.33	NA	13	4.3

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

NOTES:
1. **BOLD** values indicate an exceedance of the applicable project-specific NPDES RGP Effluent Limitation.
2. **BOLD ND** values indicate the laboratory reporting limit exceeds the applicable project-specific NPDES RGP Effluent Limitation.
3. Elevations are in feet and refer to the Cambridge City Base (CCB) Datum.
4. Groundwater elevation measured in the field on the sample date indicated.
5. Groundwater and receiving water pH measured in the laboratory.
6. Groundwater and receiving water temperature measured in the field in the sample date indicated.
7. Effluent limitations for Total Residual Chlorine (TRC) only apply if TRC is present or discharges are likely to contain residual chlorine (which is not the case for this project). The water quality-based effluent limitation (WQBEL) for TRC is 0.011 mg/L, but the compliance level for TRC is 0.05 mg/L.





MAP SOURCE: ESRI
SITE COORDINATES: 42°22'09"N, 71°04'46"W

HALEY ALDRICH

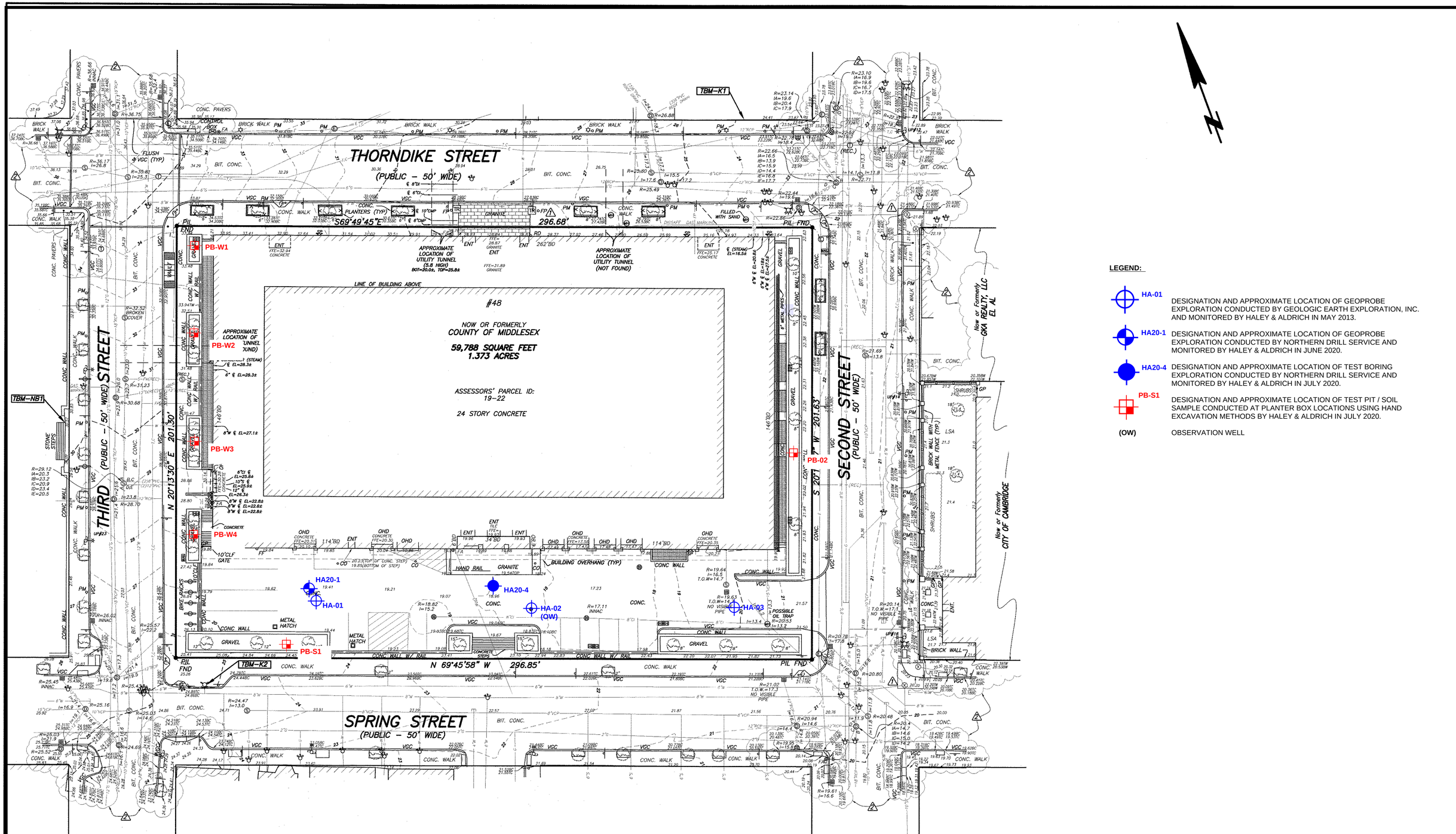
40 THORNDIKE STREET
CAMBRIDGE, MASSACHUSETTS

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
APRIL 2021

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\134476\GIS\Maps\2020_09\134476_003_0001_PROJECT_LOCUS.mxd — USER: dverrier — LAST SAVED: 9/16/2020 5:22:31 PM



LEGEND:

- **HA-01** — DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE EXPLORATION CONDUCTED BY GEOLOGIC EARTH EXPLORATION, INC. AND MONITORED BY HALEY & ALDRICH IN MAY 2013.
- **HA20-1** — DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE EXPLORATION CONDUCTED BY NORTHERN DRILL SERVICE AND MONITORED BY HALEY & ALDRICH IN JUNE 2020.
- **HA20-4** — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING EXPLORATION CONDUCTED BY NORTHERN DRILL SERVICE AND MONITORED BY HALEY & ALDRICH IN JULY 2020.
- **PB-S1** — DESIGNATION AND APPROXIMATE LOCATION OF TEST PIT / SOIL SAMPLE CONDUCTED AT PLANTER BOX LOCATIONS USING HAND EXCAVATION METHODS BY HALEY & ALDRICH IN JULY 2020.
- **(OW)** — OBSERVATION WELL

NOTES:

1. BASEPLAN TAKEN FROM PLAN TITLED "EXISTING CONDITIONS PLAN, 48 THORNDIKE STREET, CAMBRIDGE, MASS" PREPARED BY FELDMAN LAND SURVEYORS AND DATED 28 SEPTEMBER 2013.

HALEY ALDRICH

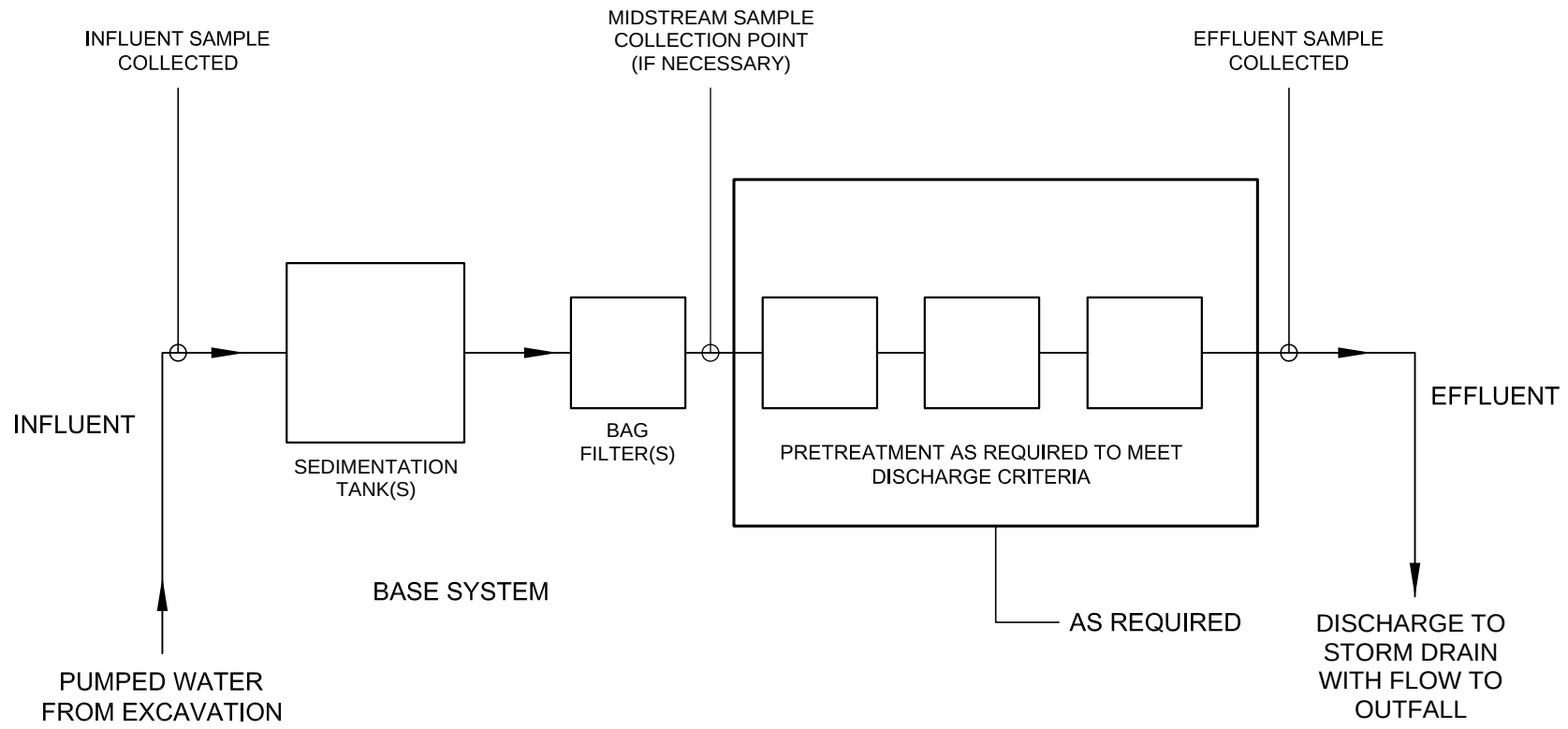
40 THORNDIKE STREET
CAMBRIDGE, MASSACHUSETTS

SITE AND SUBSURFACE EXPLORATION LOCATION PLAN

SCALE: 1" = 20'
APRIL 2021

FIGURE 2

\\haleyaldrich.com\share\CF\Projects\134476\NPDES RGP\NOI Application\Figures



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

40 THORNDIKE STREET
CAMBRIDGE, MASSACHUSETTS

PROPOSED TREATMENT SYSTEM SCHEMATIC

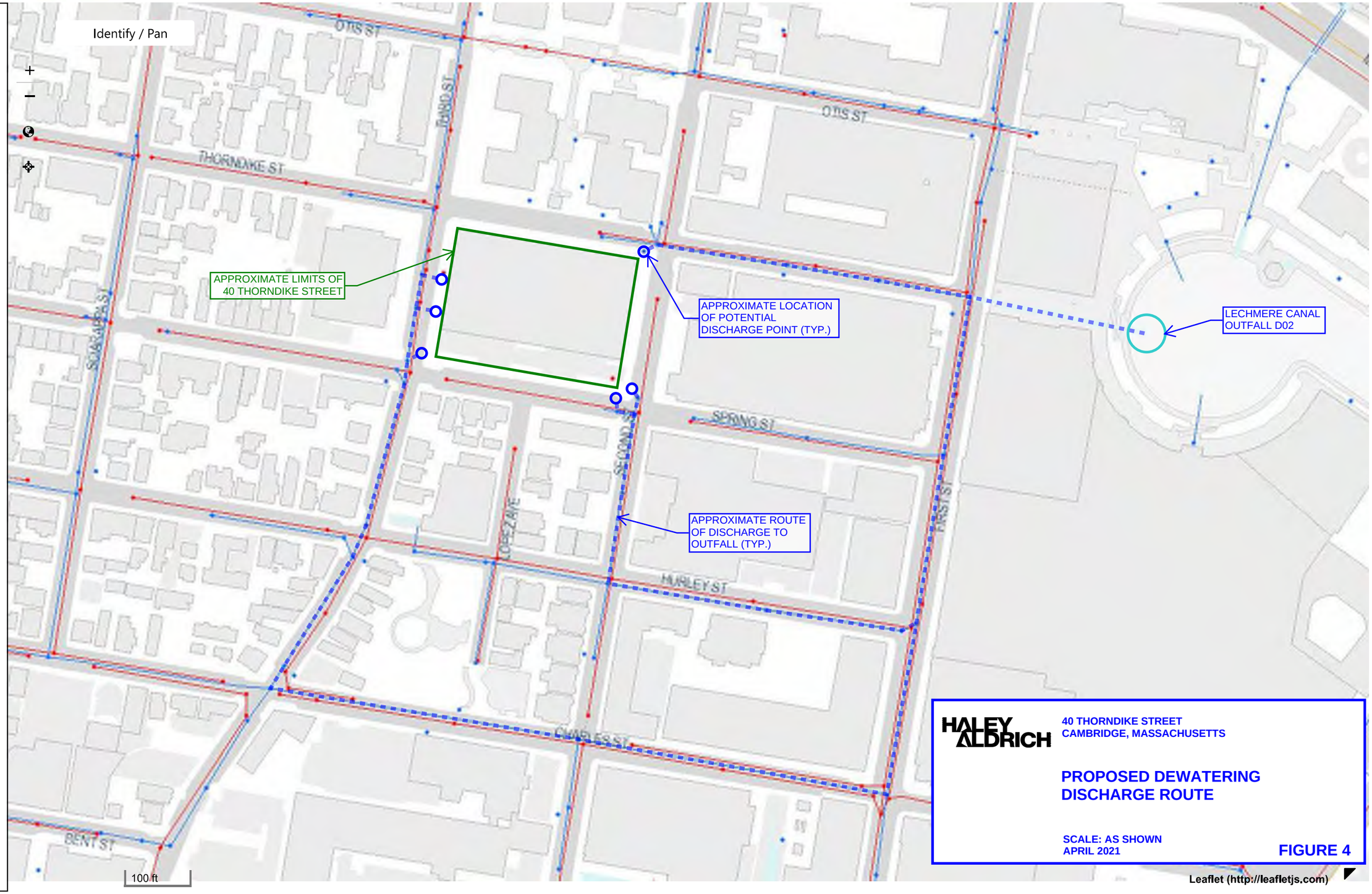
SCALE: NONE
APRIL 2021

FIGURE 3

Cambridge CityViewer *City of Cambridge, MA* **(https://www.cambridgema.gov/GIS/interactivemaps/Cambridgecityviewer)**

- Search
- Selection
- Maps
- Draw
- Share

Identify / Pan



HALEY ALDRICH

40 THORNDIKE STREET
CAMBRIDGE, MASSACHUSETTS

PROPOSED DEWATERING DISCHARGE ROUTE

SCALE: AS SHOWN
APRIL 2021

FIGURE 4

5.1.0 (production)

Leaflet (http://leafletjs.com)

APPENDIX A

Remediation General Permit Notice of Intent

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

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
40 THORNDIKE STREET</td><td colspan="3">Site address:
Street: 40 THORNDIKE STREET</td></tr>
<tr><td>City: CAMBRIDGE</td><td>State: MA</td><td>Zip: 02141</td></tr>
<tr><td rowspan="4">2. Site owner
LMP GP HOLDINGS, LLC
C/O LEGGAT MCCALL PROPERTIES

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: ROBERT GREETHAM</td></tr>
<tr><td colspan="2">Telephone: (617) 595-7063</td><td>Email: ROBERT.GREETHAM@LMP.CO</td></tr>
<tr><td colspan="3">Mailing address:
Street: 10 POST OFFICE SQUARE</td></tr>
<tr><td>City: BOSTON</td><td>State: MA</td><td>Zip: 02109</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
JOHN MORIARTY & ASSOCIATES, INC.</td><td colspan="3">Contact Person: ERIC MILLER</td></tr>
<tr><td colspan="2">Telephone: (435) 640-1218</td><td>Email: EMILLER@JM-A.COM</td></tr>
<tr><td colspan="3">Mailing address:
Street: 3 CHURCH STREET, SUITE 2</td></tr>
<tr><td>City: WINCHESTER</td><td>State: MA</td><td>Zip: 01890</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:

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

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
LECHMERE CANAL (CHARLES RIVER)	MA72-38	B

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

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

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

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. LOWER CHARLES RIVER ON 2016 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.	NA (LOW FLOW IN LECHMERE CANAL)
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	1

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ☐ Yes ■ No
If yes, indicate date confirmation received: NO 7Q10 AND NO DILUTION FACTOR REQUESTED

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

C. Source water information:

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

■ Contaminated groundwater	☐ Contaminated surface water	☐ The receiving water	☐ Potable water; if so, indicate municipality or origin:
Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No	Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	☐ A surface water other than the receiving water; if so, indicate waterbody:	■ Other; if so, specify: SEEPAGE, PRECIPITATION, SURFACE WATER RUNOFF

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

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): OUTFALL D02 TO THE LECHMERE CANAL (CHARLES RIVER)	Outfall location(s): (Latitude, Longitude) (42° 22' 10" N, 71° 4' 34" W)
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: DEWATERING EFFLUENT WILL BE DISCHARGED TO STORM DRAIN OPERATED BY CITY OF CAMBRIDGE, FINAL OUTFALL LECHMERE CANAL ☐ A private storm sewer system ■ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ☐ Yes ■ No, if so, explain, with an estimated timeframe for obtaining permission: CITY OF CAMBRIDGE PERMIT TO DEWATER APPLICATION BEING SUBMITTED CONCURRENTLY WITH THIS NOI Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ■ Yes ☐ No	
Provide the expected start and end dates of discharge(s) (month/year): MAY 2021 TO DECEMBER 2022 Indicate if the discharge is expected to occur over a duration of: ☐ less than 12 months ■ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

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

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

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

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		✓	1	SM 4500	75	2170	-	Report mg/L	---
Chloride		✓	1	300.0	50000	1430000	-	Report µg/l	---
Total Residual Chlorine	✓		1	SM 4500	20	ND	-	0.2 mg/L	11 ug/L
Total Suspended Solids	✓		1	2540D	5000	ND	-	30 mg/L	---
Antimony	✓		1	200	4	ND	-	206 µg/L	640 ug/L
Arsenic	✓		1	200	1	ND	-	104 µg/L	10 ug/L
Cadmium	✓		1	200	0.2	ND	-	10.2 µg/L	1.0345 ug/L
Chromium III	✓		1	107	10	ND	-	323 µg/L	379.5 ug/L
Chromium VI	✓		1	7196A	10	ND	-	323 µg/L	11.4 ug/L
Copper	✓		1	200	1	ND	-	242 µg/L	43.8 ug/L
Iron		✓	1	200	50	205	-	5,000 µg/L	1,000 ug/L
Lead	✓		1	200	1	ND	-	160 µg/L	31.86 ug/L
Mercury	✓		1	245	0.2	ND	-	0.739 µg/L	0.91 ug/L
Nickel	✓		1	200	2	ND	-	1,450 µg/L	241.2 ug/L
Selenium	✓		1	200	5	ND	-	235.8 µg/L	5 ug/L
Silver	✓		1	200	0.4	ND	-	35.1 µg/L	85.1 ug/L
Zinc	✓		1	200	10	ND	-	420 µg/L	555.3 ug/L
Cyanide		✓	1	4500 CN	5	5	-	178 mg/L	5.2 ug/L
B. Non-Halogenated VOCs									
Total BTEX	✓		1	624	1	ND	-	100 µg/L	---
Benzene	✓		1	624	1	ND	-	5.0 µg/L	---
1,4 Dioxane	✓		1	624 SIM	5	ND	-	200 µg/L	---
Acetone	✓		1	624	10	ND	-	7.97 mg/L	---
Phenol	✓		1	420	30	ND	-	1,080 µg/L	300 ug/L

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✓		1	624	1	ND	-	4.4 µg/L	1.6 µg/L
1,2 Dichlorobenzene	✓		1	624	5	ND	-	600 µg/L	---
1,3 Dichlorobenzene	✓		1	624	5	ND	-	320 µg/L	---
1,4 Dichlorobenzene	✓		1	624	5	ND	-	5.0 µg/L	---
Total dichlorobenzene	✓		1	624	5	ND	-	763 µg/L in NH	---
1,1 Dichloroethane	✓		1	624	1.5	ND	-	70 µg/L	---
1,2 Dichloroethane	✓		1	624	1.5	ND	-	5.0 µg/L	---
1,1 Dichloroethylene	✓		1	624	1	ND	-	3.2 µg/L	---
Ethylene Dibromide	✓		1	504.1	0.01	ND	-	0.05 µg/L	---
Methylene Chloride	✓		1	624	1	ND	-	4.6 µg/L	---
1,1,1 Trichloroethane	✓		1	624	2	ND	-	200 µg/L	---
1,1,2 Trichloroethane	✓		1	624	1.5	ND	-	5.0 µg/L	---
Trichloroethylene	✓		1	624	1	ND	-	5.0 µg/L	---
Tetrachloroethylene	✓		1	624	1	ND	-	5.0 µg/L	3.3 µg/L
cis-1,2 Dichloroethylene	✓		1	624	1	ND	-	70 µg/L	---
Vinyl Chloride	✓		1	624	1	ND	-	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✓		1	625	2.2	ND	-	190 µg/L	---
Diethylhexyl phthalate	✓		1	625	2.2	ND	-	101 µg/L	2.2 µg/L
Total Group I PAHs	✓		1	625 SIM	0.1	ND	-	1.0 µg/L	---
Benzo(a)anthracene	✓		1	625 SIM	0.1	ND	-	As Total PAHs	0.0038 µg/L
Benzo(a)pyrene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Benzo(b)fluoranthene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Benzo(k)fluoranthene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Chrysene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Dibenzo(a,h)anthracene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Indeno(1,2,3-cd)pyrene	✓		1	625 SIM	0.1	ND	-		0.0038 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
Total Group II PAHs	✓		1	625 SIM	0.1	ND	-	100 µg/L	---
Naphthalene	✓		1	625 SIM	0.1	ND	-	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✓		1	608	0.2	ND	-	0.000064 µg/L	---
Pentachlorophenol	✓		1	625 SIM	1	ND	-	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✓		1	1664A	4000	ND	-	5.0 mg/L	---
Ethanol	✓		1	1671	20000	ND		Report mg/L	---
Methyl-tert-Butyl Ether	✓		1	624	10	ND	-	70 µg/L	20 µg/L
tert-Butyl Alcohol	✓		1	624	100	ND	-	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✓		1	624	20	ND	-	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH (SU)		✓	1	4500	-	7.3	-		
Temperature (°C)		✓	1	FIELD	-	13	-		
Total Hardness		✓	1	200	660	611000			

E. Treatment system information

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

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

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
PRIOR TO DISCHARGE, COLLECTED WATER WILL BE ROUTED THROUGH SEDIMENTATION TANK AND BAG FILTERS TO REMOVE SUSPENDED SOLIDS AND UNDISSOLVED CONSTITUENTS, INCLUDING METALS. TOTAL FLOW WILL BE MEASURED WITH FLOW METER/ TOTALIZER. SUPPLEMENTAL PRE-TREATMENT MAY BE REQUIRED TO MEET NPDES RGP EFFLUENT LIMITATIONS AND MAY INCLUDE OIL/WATER SEPARATORS, pH CONTROL AND/OR OTHER COMPONENTS AS REQUIRED; REFER TO FIGURE 3 OF THE NPDES RGP NOI APPLICATION.

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

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

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: BAG FILTERS Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	25 GPM
Provide the proposed maximum effluent flow in gpm.	25 GPM
Provide the average effluent flow in gpm.	10 GPM
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	NA

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

F. Chemical and additive information

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

☐ Algaecides/biocides ☐ Antifoams ☐ Coagulants ☐ Corrosion/scale inhibitors ☐ Disinfectants ☐ Flocculants ☐ Neutralizing agents ☐ Oxidants ☐ Oxygen ☐ scavengers ☐ pH conditioners ☐ Bioremedial agents, including microbes ☐ Chlorine or chemicals containing chlorine ☐ Other; if so, specify:
THE SITE CONTRACTOR HAS NOT YET SUBMITTED THEIR CONSTRUCTION DEWATERING SUBMITTAL WHICH WILL INCLUDE DETAILS OF THE PROPOSED

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

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

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

G. Endangered Species Act eligibility determination

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

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

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

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

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

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

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

H. National Historic Preservation Act eligibility determination

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

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

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

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

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

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

I. Supplemental information

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

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.

BMPP certification statement: A BMPP MEETING THE REQUIREMENTS OF THIS GENERAL PERMIT WILL BE DEVELOPED AND IMPLEMENTED PRIOR TO INITIATION OF DISCHARGE.	
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ■ NA ☐
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ☐ No ☐ NA ■
Signature: DocuSigned by: Robert Greetham C952DA1EFAC94D2...	Date: 4/20/21
Print Name and Title: Robert Greetham, Vice President	

J. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BMPP certification statement: A BMPP MEETING THE REQUIREMENTS OF THIS GENERAL PERMIT WILL BE DEVELOPED AND IMPLEMENTED PRIOR TO INITIATION OF DISCHARGE.	
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ■ NA ☐
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ☐ No ☐ NA ■
Signature: 	Date: 04/21/2021
Print Name and Title: Eric Miller - Project Manager	

APPENDIX B

City of Cambridge Permit to Dewater

PERMIT TO DEWATER

Location: 40 Thorndike Street

Owner: LMP GP Holdings, LLC

Contractor: John Moriarty & Associates, Inc.

Temporary ☑

Permanent ☐

The property owner, LMP GP Holdings, LLC agrees to hold harmless and indemnify the City of Cambridge for any liability on the part of the City directly or indirectly arising out of the dewatering operation.

The issuance of this permit is based in part in the submission packet of the applicant with documentation as follows:

Haley & Aldrich, Inc. letter titled "NPDES RGP NOI Application, Temporary Construction Dewatering, 40 Thorndike Street Redevelopment, Cambridge, Massachusetts"

In addition, the application has been reviewed by the City under third party agreement as documented in the following reports:

NA

All activities conducted in conjunction with the issuance of this permit must be in accordance with the provisions of the aforementioned reports. Any deviations in conditions must be reported to and approved by the Commissioner of Public Works.

This permit is in addition to any other street permit issued by the Department in connection with any street excavation or obstruction; and all conditions as specified in the Discharge Permit for Dewatering.

For the entire period of time the groundwater is being discharged to a storm drain, the property owner shall provide copies of each Discharge Monitoring Report Form submitted to the EPA, pursuant to the owner's discharge permit.

If in the future the EPA requires the City of Cambridge to bring existing stormwater drainage into compliance with EPA quality standards, as a condition to the continuation of discharge of that stormwater (also including groundwater) into an EPA regulated system into which the LMP GP Holdings, LLC (property owner) drains, the owner will agree to maintain its water discharge with such EPA water quality standards.

The property owner and contractor shall at all times meet the conditions specified in the requisite legal agreement/affidavits.

All groundwater pumped from the work shall be disposed of without damage to pavements, other surfaces or property.

Where material or debris has washed or flowed into or has been placed in existing gutters, drains, pipes or structures, such material or debris shall be entirely removed and satisfactorily disposed of by the

Contractor during the progress of work as directed by the Public Works Department.

Any flooding or damage of property and possessions caused by siltation of existing gutters, pipes or structures shall be the responsibility of the Contractor.

Provisions shall be made to insure that no material, water or solid, will freeze on any pavement or in any location which will cause inconvenience or hazard to the general public.

Upon completion of the work, existing gutters, drains, pipes and structures shall be (bucket) cleaned and material disposed of satisfactorily prior to release by the Public Works Department.

Any permit issued by the City of Cambridge shall be revoked upon transfer of any ownership interest unless and until subsequent owner(s) or parties of interest agree to the foregoing terms.

This permit shall remain in effect for one year and shall be renewable thereafter at the agreement of the parties.

The following special conditions as set forth below are part of the permit.

NA

DocuSigned by:
Robert Greetham
C952DA1EFAC94D2...

City Manager	Property Manager: Corporate Entity President, General Partner or Trustee Trustee with Instrument of Authority
	4/20/21
Date	Date
City Solicitor	Contractor
	04/20/2021
Date	Date
Commissioner of Public	Contractor
Date	Date

CC: Engineering
Supervisor of Sewer Maintenance and Engineering
Superintendent of Streets
Commissioner of Inspectional Services

APPENDIX C

Effluent Limitation Calculations

Enter number values in green boxes below

Enter values in the units specified

↓

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

Enter a dilution factor, if other than zero

↓

0

Enter values in the units specified

↓

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

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

↓

7.6	pH in **Standard Units**
4.3	Temperature in **°C**
0.112	Ammonia in **mg/L**
76.3	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**
2.01	Copper in **µg/L**
329	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
16.02	Zinc in **µg/L**

Enter **influent** concentrations in the units specified

↓

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

Notes:

Freshwater: Q_R equal to the 7Q10; enter alternate Q_R if approved by the State; enter 0 if no dilution factor approved

Saltwater (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 maximum

if >10 samples, may enter 95th percentile

Enter 0 if non-detect or testing not required

Dilution Factor	1.0					
A. Inorganics	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	**Report**	mg/L	---			
Chloride	**Report**	µg/L	---			
Total Residual Chlorine	0.2	mg/L	**11**	µg/L	50	µg/L
Total Suspended Solids	**30**	mg/L	---			
Antimony	**206**	µg/L	640	µg/L		
Arsenic	**104**	µg/L	10	µg/L		
Cadmium	**10.2**	µg/L	1.0345	µg/L		
Chromium III	**323**	µg/L	379.5	µg/L		
Chromium VI	**323**	µg/L	11.4	µg/L		
Copper	**242**	µg/L	43.8	µg/L		
Iron	**5000**	µg/L	1000	µg/L		
Lead	**160**	µg/L	31.86	µg/L		
Mercury	**0.739**	µg/L	0.91	µg/L		
Nickel	**1450**	µg/L	241.2	µg/L		
Selenium	**235.8**	µg/L	5.0	µg/L		
Silver	**35.1**	µg/L	85.1	µg/L		
Zinc	**420**	µg/L	555.3	µg/L		
Cyanide	**178**	mg/L	5.2	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	300	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	**4.4**	µg/L	1.6	µg/L		
1,2 Dichlorobenzene	**600**	µg/L	---			
1,3 Dichlorobenzene	**320**	µg/L	---			
1,4 Dichlorobenzene	**5.0**	µg/L	---			
Total dichlorobenzene	**---**	µg/L	---			
1,1 Dichloroethane	**70**	µg/L	---			
1,2 Dichloroethane	**5.0**	µg/L	---			
1,1 Dichloroethylene	**3.2**	µg/L	---			
Ethylene Dibromide	**0.05**	µg/L	---			
Methylene Chloride	**4.6**	µg/L	---			
1,1,1 Trichloroethane	**200**	µg/L	---			
1,1,2 Trichloroethane	**5.0**	µg/L	---			
Trichloroethylene	**5.0**	µg/L	---			
Tetrachloroethylene	**5.0**	µg/L	3.3	µg/L		
cis-1,2 Dichloroethylene	**70**	µg/L	---			
Vinyl Chloride	**2.0**	µg/L	---			
D. Non-Halogenated SVOCs						
Total Phthalates	**190**	µg/L	---	µg/L		
Diethylhexyl phthalate	**101**	µg/L	2.2	µg/L		
Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---			
Benzo(a)anthracene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Benzo(a)pyrene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Chrysene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.0038	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	20	µg/L		
tert-Butyl Alcohol	**120**	µg/L	---			
tert-Amyl Methyl Ether	**90**	µg/L	---			

APPENDIX D

Endangered Species Act Documentation

MassDEP - Bureau of Waste Site Cleanup

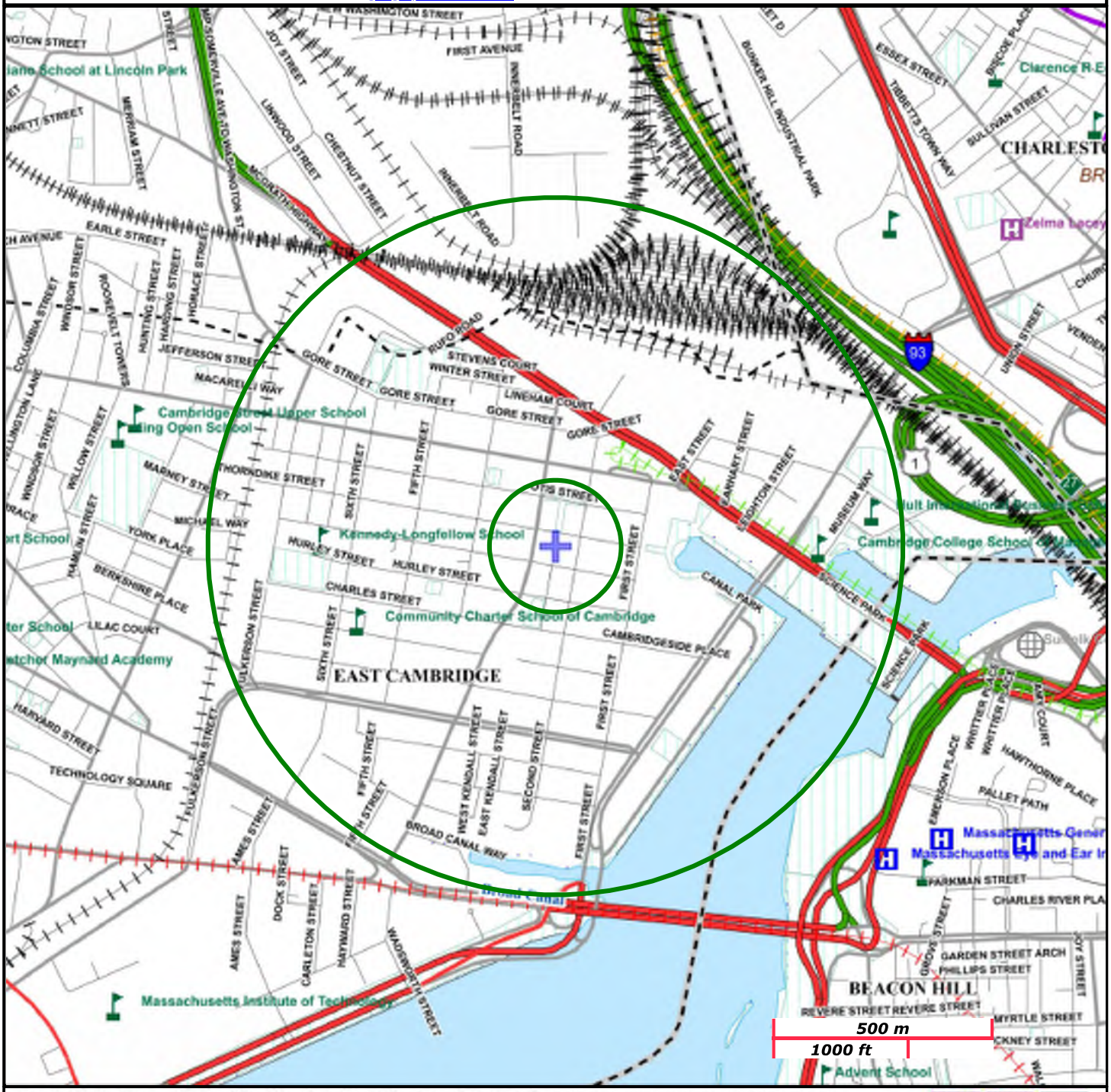
Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
40 THORNDIKE STREET
40 THORNDIKE STREET, CAMBRIDGE, MA CAMBRIDGE, MA

NAD83 UTM Meters:
4692872mN , 328767mE (Zone: 19)
April 13, 2021

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



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: April 14, 2021
Consultation Code: 05E1NE00-2021-SLI-2435
Event Code: 05E1NE00-2021-E-07640
Project Name: 40 Thorndike Street Project Site

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:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 05E1NE00-2021-SLI-2435
Event Code: 05E1NE00-2021-E-07640
Project Name: 40 Thorndike Street Project Site
Project Type: DEVELOPMENT
Project Description: The project site is located at 40 Thorndike Street in Cambridge, Massachusetts. Redevelopment of the currently existing building at the site is anticipated to take place in 2021. Temporary construction dewatering may be necessary to complete below-grade construction activities in-the-dry.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.3692121,-71.07961197010336,14z

Counties: Middlesex County, Massachusetts

Endangered Species Act Species

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

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

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

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

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

Critical habitats

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

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

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

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

Project information

NAME

40 Thorndike Street Project Site

LOCATION

Middlesex County, Massachusetts

DESCRIPTION

Some(The project site is located at 40 Thorndike Street in Cambridge, Massachusetts. Redevelopment of the currently existing building at the site is anticipated to take place in 2021. Temporary construction dewatering may be necessary to complete below-grade construction activities in-the-dry.)

Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

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

http://www.fws.gov/newengland

Endangered species

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

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

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

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

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] 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 Fisheries[2]).

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.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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 erythropthalmus 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
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 This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 29 to Jul 20
Dunlin Calidris alpina arcticola This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Kentucky Warbler Oporornis formosus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Nelson's Sparrow Ammodramus nelsoni This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Sep 5

Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Red-throated Loon Gavia stellata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Snowy Owl Bubo scandiacus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

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.

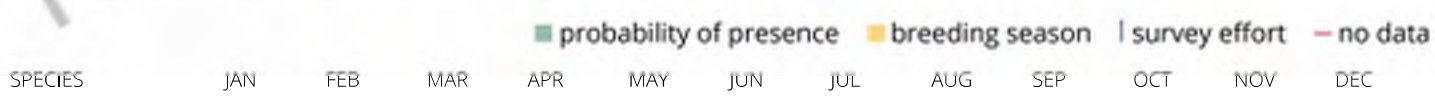
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

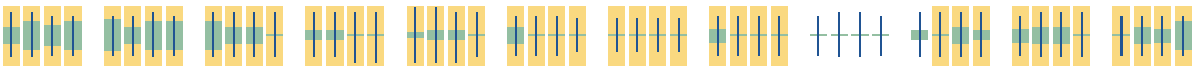
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.)

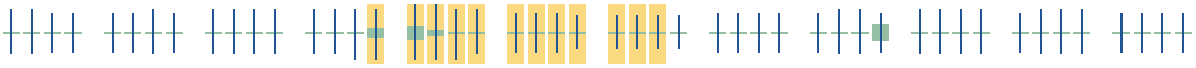


Black-billed Cuckoo BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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

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

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



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

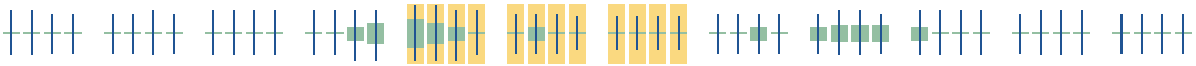
Evening Grosbeak BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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

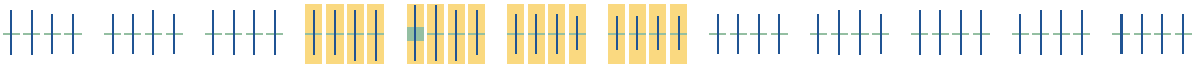
Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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

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



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



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

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

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

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

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

Wood Thrush 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 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

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

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

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

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

Data exclusions

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

Data precautions

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

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: April 14, 2021
Consultation Code: 05E1NE00-2021-SLI-2436
Event Code: 05E1NE00-2021-E-07642
Project Name: 40 Thorndike Street Discharge Location

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:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 05E1NE00-2021-SLI-2436
Event Code: 05E1NE00-2021-E-07642
Project Name: 40 Thorndike Street Discharge Location
Project Type: DEVELOPMENT
Project Description: Discharge location for temporary construction dewatering activities associated with 40 Thorndike Street.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.3691388,-71.0762683950831,14z

Counties: Middlesex County, Massachusetts

Endangered Species Act Species

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

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

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

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

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

Critical habitats

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

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

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

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

Project information

NAME

40 Thorndike Street Discharge Location

LOCATION

Middlesex County, Massachusetts

DESCRIPTION

Some(Discharge location for temporary construction dewatering activities associated with 40 Thorndike Street.)

Local office

New England Ecological Services Field Office

(603) 223-2541

(603) 223-0104

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

http://www.fws.gov/newengland

Endangered species

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

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

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

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

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] 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 Fisheries[2]).

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.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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 — Breeds Oct 15 to Aug 31
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

Black-billed Cuckoo Coccyzus erythropthalmus — Breeds May 15 to Oct 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9399

Bobolink Dolichonyx oryzivorus — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Canada Warbler Cardellina canadensis — Breeds May 20 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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

Dunlin Calidris alpina arcticola — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Evening Grosbeak Coccothraustes vespertinus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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

Nelson's Sparrow Ammodramus nelsoni — Breeds May 15 to Sep 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Red-throated Loon Gavia stellata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Snowy Owl Bubo scandiacus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

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.

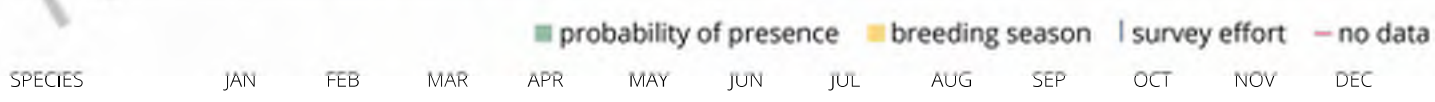
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

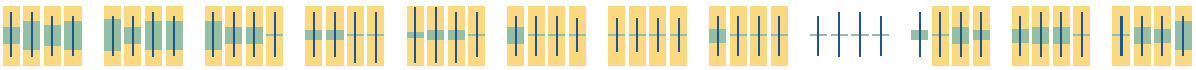
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.)

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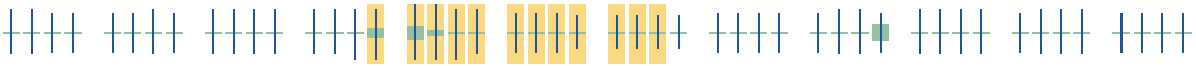
Cerulean Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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

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

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

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

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

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

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

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

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

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

Wood Thrush 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 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

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

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 tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

APPENDIX E

National Register of Historic Places and
Massachusetts Historical Commission Documentation

Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth

Massachusetts Cultural Resource Information System

MACRIS

Scanned forms and photos now available for selected towns!

The Massachusetts Cultural Resource Information System (MACRIS) allows you to search the Massachusetts Historical Commission database for information on historic properties and areas in the Commonwealth.

Users of the database should keep in mind that it does not include information on all historic properties and areas in Massachusetts, nor does it reflect all the information on file on historic properties and areas at the Massachusetts Historical Commission.

Click here to begin your search of the MACRIS database.




Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Street No: 40; Street Name: Thorndike; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Street No: 48; Street Name: Thorndike; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Street Name: Thorndike; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
CAM.331	Old Middlesex County Superior Courthouse	90 Third St	Cambridge	1814
CAM.388	Stevens, Atherton H. Rowhouse	59 Thorndike St	Cambridge	1827
CAM.395	Smallidge, Samuel House	66 Thorndike St	Cambridge	1827
CAM.389	Bates, Moses Jr. House	69 Thorndike St	Cambridge	1844
CAM.396	Buck, Silas B. House	70 Thorndike St	Cambridge	1845
CAM.390	Tufts, Sophia Kimball Double House	71-73 Thorndike St	Cambridge	1857
CAM.397	Wellington, Peter House	74 Thorndike St	Cambridge	1843
CAM.391		75 Thorndike St	Cambridge	
CAM.398		76 Thorndike St	Cambridge	
CAM.392		77 Thorndike St	Cambridge	
CAM.399		78 Thorndike St	Cambridge	
CAM.393		79-81 Thorndike St	Cambridge	
CAM.400		80 Thorndike St	Cambridge	
CAM.394		83 Thorndike St	Cambridge	
CAM.402	Stickney, Francis H. - Davies, Benjamin Rowhouse	84 Thorndike St	Cambridge	1867
CAM.417	Clark, Cornelius - Kneeland, W. W. House	85 Thorndike St	Cambridge	1822
CAM.403	Stickney, Francis H. - Davies, Benjamin Rowhouse	86 Thorndike St	Cambridge	1867
CAM.404	Stickney, Francis H. - Davies, Benjamin Rowhouse	88 Thorndike St	Cambridge	1867
CAM.418		89-91 Thorndike St	Cambridge	
CAM.405	Stickney, Francis H. - Davies, Benjamin Rowhouse	90 Thorndike St	Cambridge	1867
CAM.406	Stickney, Francis H. - Davies, Benjamin Rowhouse	92 Thorndike St	Cambridge	1867
CAM.419	Whitacre, Celeste I. Rowhouse	93 Thorndike St	Cambridge	1885
CAM.407	Stickney, Francis H. - Davies, Benjamin Rowhouse	94 Thorndike St	Cambridge	1867

Inv. No.	Property Name	Street	Town	Year
CAM.420	Whitacre, Celeste I. Rowhouse	95 Thorndike St	Cambridge	1885
CAM.408	Train, Isaac House	96 Thorndike St	Cambridge	1826
CAM.421	Whitacre, Celeste I. Rowhouse	97 Thorndike St	Cambridge	1885
CAM.422	Davies, Daniel House	97 1/2 Thorndike St	Cambridge	1843
CAM.409		98 Thorndike St	Cambridge	
CAM.423		99 Thorndike St	Cambridge	
CAM.424	Daniels, Granville W. House	101 Thorndike St	Cambridge	1868
CAM.410		102 Thorndike St	Cambridge	
CAM.411	Spare, Elijah Jr. Double House	104-106 Thorndike St	Cambridge	1846
CAM.425	Eaton, Charles House	109 Thorndike St	Cambridge	1857
CAM.412	Quimby, Amos House	110 Thorndike St	Cambridge	1857
CAM.426		111-113 Thorndike St	Cambridge	
CAM.413	Stickney, Francis H. Double House	112-114 Thorndike St	Cambridge	1863
CAM.427		113 1/2 Thorndike St	Cambridge	
CAM.414	Bacon, Henry A. House	116 Thorndike St	Cambridge	1865
CAM.507	Sacred Heart Roman Catholic School and Convent	163 Thorndike St	Cambridge	1902

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Street Name: Spring; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
CAM.325	Harugari Hall	154 Spring St	Cambridge	1873

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Street Name: second; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
CAM.375	Roby, Ebenezer Rowhouse	30 Second St	Cambridge	1836
CAM.376	Roby, Ebenezer Rowhouse	32 Second St	Cambridge	1836
CAM.377	Roby, Ebenezer Rowhouse	34 Second St	Cambridge	1836
CAM.364	Hall, Jesse Rowhouse	36 Second St	Cambridge	1842
CAM.365	Hall, Jesse Rowhouse	38 Second St	Cambridge	1842
CAM.366	Hall, Jesse Rowhouse	40 Second St	Cambridge	1842
CAM.367	Hall, Jesse Rowhouse	42 Second St	Cambridge	1842
CAM.368	Hall, Jesse Rowhouse	44 Second St	Cambridge	1842
CAM.369	Hall, Jesse Rowhouse	46 Second St	Cambridge	1842
CAM.370		50 Second St	Cambridge	
CAM.308	American Net and Twine Company Factory	155R Second St	Cambridge	1875

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

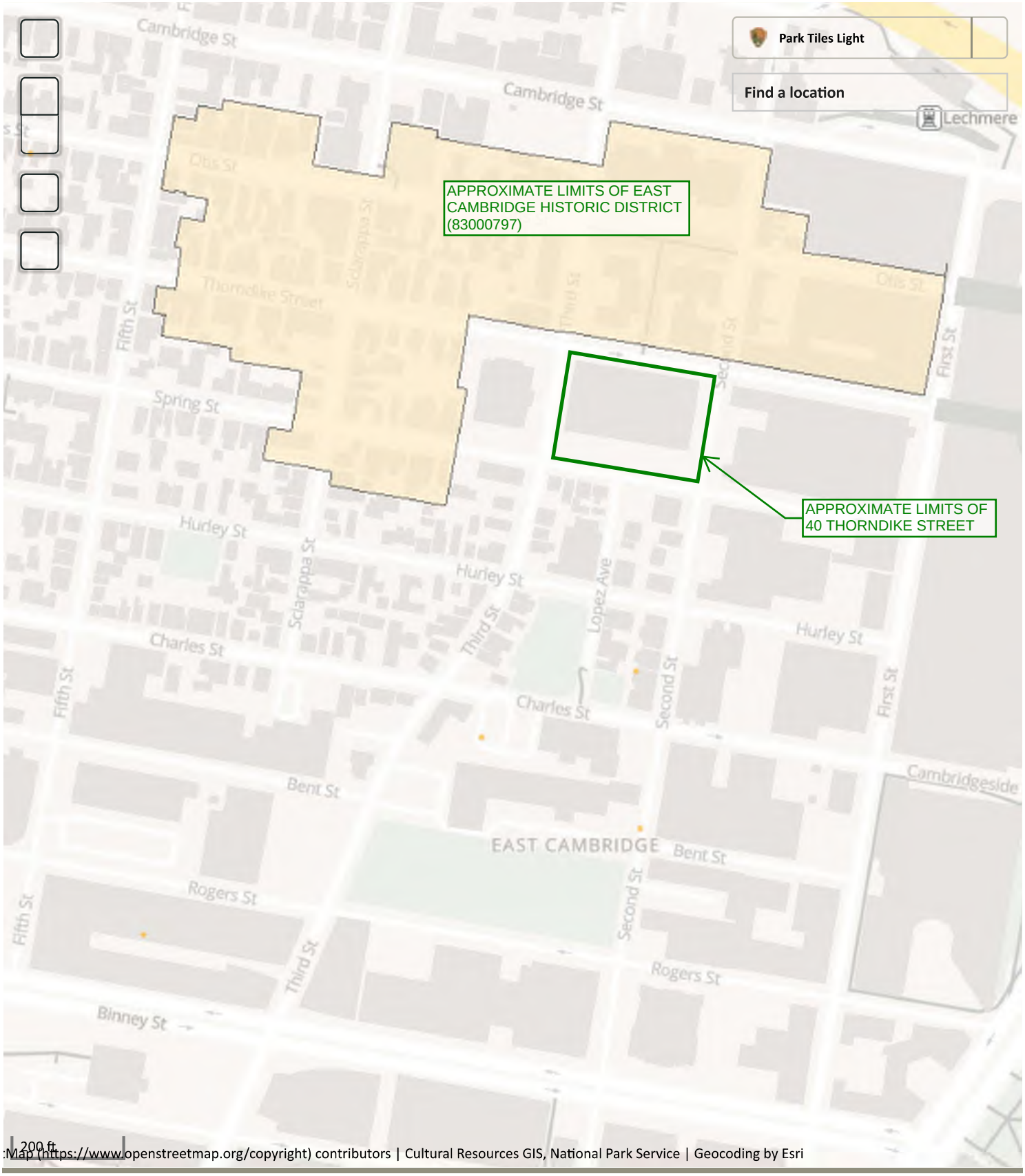
Search Criteria: Town(s): Cambridge; Street Name: Third; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
CAM.353	Blake and Knowles Core Shop #1	Third St	Cambridge	c 1889
CAM.354	Blake and Knowles Core Shop #2	Third St	Cambridge	c 1890
CAM.505	Lechmere Point Corporation Row House	25 Third St	Cambridge	c 1821
CAM.381	Rollins, John W. Rowhouse	83 Third St	Cambridge	1860
CAM.382	Rollins, John W. Rowhouse	85 Third St	Cambridge	1860
CAM.383	Rollins, John W. Rowhouse	87 Third St	Cambridge	1860
CAM.384	Rollins, John W. Rowhouse	89 Third St	Cambridge	1860
CAM.331	Old Middlesex County Superior Courthouse	90 Third St	Cambridge	1814
CAM.385	Rollins, John W. Rowhouse	91 Third St	Cambridge	1860
CAM.386	Rollins, John W. Rowhouse	93 Third St	Cambridge	1860
CAM.387	Rollins, John W. Rowhouse	95 Third St	Cambridge	1860
CAM.314	Holy Cross Polish National Catholic Church	99 Third St	Cambridge	1827
CAM.315	Bottle House Block	204-214 Third St	Cambridge	1826
CAM.350	Blake and Knowles Machine Shop #1	265 Third St	Cambridge	1889
CAM.351	Blake and Knowles Office Headhouse	265 Third St	Cambridge	1892
CAM.355	Blake and Knowles Smith Shop and Brass Foundry	275 Third St	Cambridge	c 1890
CAM.326	Cambridge Gas Light Company Purifying Plant	354 Third St	Cambridge	1908

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 Report

ANALYTICAL REPORT

Lab Number:	L2111682
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Lee Vanzler
Phone:	(617) 886-7561
Project Name:	40 THORNDIKE STREET
Project Number:	134476-005
Report Date:	04/15/21

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: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2111682-01	HA-02_2021-0309	WATER	CAMBRIDGE, MA	03/09/21 11:30	03/09/21
L2111682-02	RECEIVING WATER_2021-0309	WATER	CAMBRIDGE, MA	03/09/21 13:00	03/09/21

Project Name:	40 THORNDIKE STREET	**Lab Number:**	L2111682
Project Number:	134476-005	**Report Date:**	04/15/21

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:	40 THORNDIKE STREET	**Lab Number:**	L2111682
Project Number:	134476-005	**Report Date:**	04/15/21

Case Narrative (continued)

Report Revision

April 15, 2021: The Volatile Organics analyte list has been amended on L2111682-01.

Report Submission

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.

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 Caitlin Walukevich

Title: Technical Director/Representative Date: 04/15/21

ORGANICS

VOLATILES

Project Name: 40 THORNDIKE STREET
Lab Number: L2111682
Project Number: 134476-005
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA
Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/10/21 07:21
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: 40 THORNDIKE STREET **Lab Number:** L2111682

Project Number: 134476-005 **Report Date:** 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01 Date Collected: 03/09/21 11:30

Client ID: HA-02_2021-0309 Date Received: 03/09/21

Sample Location: CAMBRIDGE, MA Field Prep: None

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	101		60-140
Fluorobenzene	98		60-140
4-Bromofluorobenzene	100		60-140

Project Name: 40 THORNDIKE STREET
Lab Number: L2111682
Project Number: 134476-005
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA
Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1-SIM
Analytical Date: 03/10/21 07:21
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	100		60-140
4-Bromofluorobenzene	96		60-140

Project Name: 40 THORNDIKE STREET
Lab Number: L2111682
Project Number: 134476-005
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA

Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 03/12/21 17:25
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 03/12/21 16:06

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: 40 THORNDIKE STREET **Lab Number:** L2111682

Project Number: 134476-005 **Report Date:** 04/15/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 03/10/21 04:28
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1472711-4					
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: 40 THORNDIKE STREET **Lab Number:** L2111682

Project Number: 134476-005 **Report Date:** 04/15/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 03/10/21 04:28
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1472711-4					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	100		60-140
Fluorobenzene	98		60-140
4-Bromofluorobenzene	99		60-140

Project Name: 40 THORNDIKE STREET **Lab Number:** L2111682

Project Number: 134476-005 **Report Date:** 04/15/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1-SIM
Analytical Date: 03/10/21 04:28
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1472725-4					
1,4-Dioxane	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	99		60-140
4-Bromofluorobenzene	94		60-140

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 03/12/21 16:55
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 03/12/21 16:06

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG1473859-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

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: WG1472711-3								
Methylene chloride	120		-		60-140	-		28
1,1-Dichloroethane	110		-		50-150	-		49
Carbon tetrachloride	125		-		70-130	-		41
1,1,2-Trichloroethane	115		-		70-130	-		45
Tetrachloroethene	120		-		70-130	-		39
1,2-Dichloroethane	120		-		70-130	-		49
1,1,1-Trichloroethane	120		-		70-130	-		36
Benzene	125		-		65-135	-		61
Toluene	120		-		70-130	-		41
Ethylbenzene	125		-		60-140	-		63
Vinyl chloride	80		-		5-195	-		66
1,1-Dichloroethene	115		-		50-150	-		32
cis-1,2-Dichloroethene	125		-		60-140	-		30
Trichloroethene	115		-		65-135	-		48
1,2-Dichlorobenzene	130		-		65-135	-		57
1,3-Dichlorobenzene	130		-		70-130	-		43
1,4-Dichlorobenzene	130		-		65-135	-		57
p/m-Xylene	120		-		60-140	-		30
o-xylene	120		-		60-140	-		30
Acetone	84		-		40-160	-		30
Methyl tert butyl ether	110		-		60-140	-		30
Tert-Butyl Alcohol	120		-		60-140	-		30
Tertiary-Amyl Methyl Ether	115		-		60-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

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: WG1472711-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	99				60-140
Fluorobenzene	101				60-140
4-Bromofluorobenzene	102				60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

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: WG1472725-3								
1,4-Dioxane	120		-		60-140	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Fluorobenzene	100				60-140
4-Bromofluorobenzene	95				60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab	Associated sample(s): 01		Batch: WG1473859-2						
1,2-Dibromoethane	86		-		80-120	-			A

Matrix Spike Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

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: WG1473859-3		QC Sample: L2111682-01		Client ID: HA-02_2021-0309							
1,2-Dibromoethane	ND	0.249	0.282	113		-	-		80-120	-		20	A

SEMIVOLATILES

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA

Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 03/11/21 18:00
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 03/10/21 08:17

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	52		42-122
2-Fluorobiphenyl	56		46-121
4-Terphenyl-d14	71		47-138

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA

Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 03/11/21 17:17
Analyst: DV

Extraction Method: EPA 625.1
Extraction Date: 03/10/21 08:22

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	36		25-87
Phenol-d6	26		16-65
Nitrobenzene-d5	72		42-122
2-Fluorobiphenyl	74		46-121
2,4,6-Tribromophenol	97		45-128
4-Terphenyl-d14	98		47-138

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 03/11/21 16:29
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 03/10/21 08:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1472661-1					
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	53		42-122
2-Fluorobiphenyl	58		46-121
4-Terphenyl-d14	65		47-138

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 03/11/21 16:28
Analyst: RP

Extraction Method: EPA 625.1
Extraction Date: 03/10/21 08:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1472663-1					
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	41		25-87
Phenol-d6	29		16-65
Nitrobenzene-d5	73		42-122
2-Fluorobiphenyl	72		46-121
2,4,6-Tribromophenol	73		45-128
4-Terphenyl-d14	85		47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

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: WG1472661-2								
Bis(2-ethylhexyl)phthalate	102		-		29-137	-		82
Butyl benzyl phthalate	98		-		1-140	-		60
Di-n-butylphthalate	91		-		8-120	-		47
Di-n-octylphthalate	102		-		19-132	-		69
Diethyl phthalate	90		-		1-120	-		100
Dimethyl phthalate	92		-		1-120	-		183

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	78				42-122
2-Fluorobiphenyl	83				46-121
4-Terphenyl-d14	93				47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

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: WG1472663-2								
Acenaphthene	81		-		60-132	-		30
Fluoranthene	90		-		43-121	-		30
Naphthalene	67		-		36-120	-		30
Benzo(a)anthracene	87		-		42-133	-		30
Benzo(a)pyrene	79		-		32-148	-		30
Benzo(b)fluoranthene	90		-		42-140	-		30
Benzo(k)fluoranthene	87		-		25-146	-		30
Chrysene	85		-		44-140	-		30
Acenaphthylene	83		-		54-126	-		30
Anthracene	86		-		43-120	-		30
Benzo(ghi)perylene	86		-		1-195	-		30
Fluorene	85		-		70-120	-		30
Phenanthrene	83		-		65-120	-		30
Dibenzo(a,h)anthracene	91		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	89		-		1-151	-		30
Pyrene	90		-		70-120	-		30
Pentachlorophenol	57		-		38-152	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

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: WG1472663-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	41				25-87
Phenol-d6	31				16-65
Nitrobenzene-d5	73				42-122
2-Fluorobiphenyl	74				46-121
2,4,6-Tribromophenol	87				45-128
4-Terphenyl-d14	96				47-138

PCBS

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA

Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 03/11/21 17:54
Analyst: JAW

Extraction Method: EPA 608.3
Extraction Date: 03/11/21 07:40
Cleanup Method: EPA 3665A
Cleanup Date: 03/11/21
Cleanup Method: EPA 3660B
Cleanup Date: 03/11/21

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	63		37-123	B
Decachlorobiphenyl	68		38-114	B
2,4,5,6-Tetrachloro-m-xylene	64		37-123	A
Decachlorobiphenyl	61		38-114	A

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 03/11/21 17:08
Analyst: JAW

Extraction Method: EPA 608.3
Extraction Date: 03/11/21 07:40
Cleanup Method: EPA 3665A
Cleanup Date: 03/11/21
Cleanup Method: EPA 3660B
Cleanup Date: 03/11/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1473112-1						
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	78		37-123	B
Decachlorobiphenyl	104		38-114	B
2,4,5,6-Tetrachloro-m-xylene	87		37-123	A
Decachlorobiphenyl	96		38-114	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

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: WG1473112-2									
Aroclor 1016	72		-		50-140	-		36	A
Aroclor 1260	80		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63				37-123	B
Decachlorobiphenyl	89				38-114	B
2,4,5,6-Tetrachloro-m-xylene	66				37-123	A
Decachlorobiphenyl	80				38-114	A

METALS

Project Name: 40 THORNDIKE STREET
Lab Number: L2111682
Project Number: 134476-005
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA
Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

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	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Copper, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Iron, Total	0.205		mg/l	0.050	--	1	03/11/21 10:34	03/15/21 09:41	EPA 3005A	19,200.7	GD
Lead, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020	--	1	03/15/21 16:21	03/15/21 21:41	EPA 245.1	3,245.1	BV
Nickel, Total	ND		mg/l	0.00200	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000	--	1	03/11/21 10:34	03/11/21 15:00	EPA 3005A	3,200.8	AM
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	611		mg/l	0.660	NA	1	03/11/21 10:34	03/15/21 09:41	EPA 3005A	19,200.7	GD
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		03/11/21 15:00	NA	107,-	

Project Name: 40 THORNDIKE STREET **Lab Number:** L2111682

Project Number: 134476-005 **Report Date:** 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-02 Date Collected: 03/09/21 13:00

Client ID: RECEIVING WATER_2021-0309 Date Received: 03/09/21

Sample Location: CAMBRIDGE, 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	0.00400	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Copper, Total	0.00201		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Iron, Total	0.329		mg/l	0.050	--	1	03/11/21 10:34	03/15/21 10:23	EPA 3005A	19,200.7	GD
Lead, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020	--	1	03/15/21 16:21	03/15/21 21:54	EPA 245.1	3,245.1	BV
Nickel, Total	ND		mg/l	0.00200	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Zinc, Total	0.01602		mg/l	0.01000	--	1	03/11/21 10:34	03/11/21 15:55	EPA 3005A	3,200.8	AM
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	76.3		mg/l	0.660	NA	1	03/11/21 10:34	03/15/21 10:23	EPA 3005A	19,200.7	GD

Project Name: 40 THORNDIKE STREET **Lab Number:** L2111682

Project Number: 134476-005 **Report Date:** 04/15/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1472799-1										
Antimony, Total	ND		mg/l	0.00400	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Copper, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Lead, Total	ND		mg/l	0.00100	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Nickel, Total	ND		mg/l	0.00200	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000	--	1	03/11/21 10:34	03/11/21 15:44	3,200.8	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1472801-1										
Iron, Total	ND		mg/l	0.050	--	1	03/11/21 10:34	03/15/21 09:18	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 Hardness by SM 2340B - Mansfield Lab for sample(s): 01-02 Batch: WG1472801-1										
Hardness	ND		mg/l	0.660	NA	1	03/11/21 10:34	03/15/21 09:18	19,200.7	GD

Prep Information

Digestion Method: EPA 3005A

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1474655-1										
Mercury, Total	ND		mg/l	0.00020	--	1	03/15/21 16:21	03/15/21 19:53	3,245.1	BV

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1472799-2								
Antimony, Total	95		-		85-115	-		
Arsenic, Total	105		-		85-115	-		
Cadmium, Total	107		-		85-115	-		
Chromium, Total	96		-		85-115	-		
Copper, Total	101		-		85-115	-		
Lead, Total	99		-		85-115	-		
Nickel, Total	97		-		85-115	-		
Selenium, Total	102		-		85-115	-		
Silver, Total	102		-		85-115	-		
Zinc, Total	108		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1472801-2								
Iron, Total	101		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 Batch: WG1472801-2								
Hardness	105		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1474655-2								
Mercury, Total	99		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472799-3 QC Sample: L2111682-01 Client ID: HA-02_2021-0309												
Antimony, Total	ND	0.5	0.5574	111		-	-		70-130	-		20
Arsenic, Total	ND	0.12	0.1249	104		-	-		70-130	-		20
Cadmium, Total	ND	0.051	0.05215	102		-	-		70-130	-		20
Chromium, Total	ND	0.2	0.1906	95		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2506	100		-	-		70-130	-		20
Lead, Total	ND	0.51	0.5205	102		-	-		70-130	-		20
Nickel, Total	ND	0.5	0.4755	95		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1043	87		-	-		70-130	-		20
Silver, Total	ND	0.05	0.05023	100		-	-		70-130	-		20
Zinc, Total	ND	0.5	0.5232	105		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-3 QC Sample: L2111682-01 Client ID: HA-02_2021-0309												
Iron, Total	0.205	1	1.19	98		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-3 QC Sample: L2111682-01 Client ID: HA-02_2021-0309												
Hardness	611	66.2	672	92		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-7 QC Sample: L2111682-02 Client ID: RECEIVING WATER_2021-0309												
Iron, Total	0.329	1	1.34	101		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-7 QC Sample: L2111682-02 Client ID: RECEIVING WATER_2021-0309												
Hardness	76.3	66.2	144	102		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1474655-3 QC Sample: L2112629-01 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00462	92	-	-	70-130	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472799-4 QC Sample: L2111682-01 Client ID: HA-02_2021-0309						
Antimony, Total	ND	0.00417	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-4 QC Sample: L2111682-01 Client ID: HA-02_2021-0309						
Iron, Total	0.205	0.207	mg/l	1		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-4 QC Sample: L2111682-01 Client ID: HA-02_2021-0309						
Hardness	611	602	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-8 QC Sample: L2111682-02 Client ID: RECEIVING WATER_2021-0309						
Iron, Total	0.329	0.340	mg/l	3		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-8 QC Sample: L2111682-02 Client ID: RECEIVING WATER_2021-0309					
Hardness	76.3	76.9	mg/l	1	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1474655-4 QC Sample: L2112629-01 Client ID: DUP Sample					
Mercury, Total	ND	ND	mg/l	NC	20

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2111682
Report Date: 04/15/21

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-10 QC Sample: L2111682-02 Client ID: RECEIVING WATER_2021-0309						
Hardness	76.3	78.4	mg/l	3		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1472801-6 QC Sample: L2111682-01 Client ID: HA-02_2021-0309						
Hardness	611	612	mg/l	0		20

INORGANICS
&
MISCELLANEOUS

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-01
Client ID: HA-02_2021-0309
Sample Location: CAMBRIDGE, MA
Sample Depth:
Matrix: Water

Date Collected: 03/09/21 11:30
Date Received: 03/09/21
Field Prep: None

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	-	03/11/21 15:05	121,2540D	AC
Cyanide, Total	0.005		mg/l	0.005	--	1	03/11/21 14:15	03/11/21 17:18	121,4500CN-CE	CR
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/10/21 00:12	121,4500CL-D	AW
pH (H)	7.3		SU	-	NA	1	-	03/09/21 22:49	121,4500H+-B	AS
Nitrogen, Ammonia	2.17		mg/l	0.075	--	1	03/12/21 11:30	03/15/21 12:39	121,4500NH3-BH	JO
TPH, SGT-HEM	ND		mg/l	4.00	--	1	03/11/21 18:30	03/11/21 20:00	74,1664A	TL
Phenolics, Total	ND		mg/l	0.030	--	1	03/10/21 07:10	03/10/21 10:37	4,420.1	KP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/10/21 06:35	03/10/21 07:08	1,7196A	AW
Anions by Ion Chromatography - Westborough Lab										
Chloride	1430		mg/l	50.0	--	100	-	03/10/21 22:29	44,300.0	AT

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005
Lab Number: L2111682
Report Date: 04/15/21

SAMPLE RESULTS

Lab ID: L2111682-02
Client ID: RECEIVING WATER_2021-0309
Sample Location: CAMBRIDGE, MA
Sample Depth:
Matrix: Water
Date Collected: 03/09/21 13:00
Date Received: 03/09/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.6		SU	-	NA	1	-	03/09/21 22:49	121,4500H+-B	AS
Nitrogen, Ammonia	0.112		mg/l	0.075	--	1	03/12/21 11:30	03/15/21 12:40	121,4500NH3-BH	JO
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/10/21 06:35	03/10/21 07:09	1,7196A	AW

Project Name: 40 THORNDIKE STREET **Lab Number:** L2111682

Project Number: 134476-005 **Report Date:** 04/15/21

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: WG1472531-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/10/21 00:12	121,4500CL-D	AW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1472607-1										
Phenolics, Total	ND		mg/l	0.030	--	1	03/10/21 07:10	03/10/21 10:34	4,420.1	KP
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1472621-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/10/21 06:35	03/10/21 07:03	1,7196A	AW
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG1472993-1										
Chloride	ND		mg/l	0.500	--	1	-	03/10/21 17:01	44,300.0	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1473241-1										
Cyanide, Total	ND		mg/l	0.005	--	1	03/11/21 14:15	03/11/21 16:57	121,4500CN-CE	CR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1473297-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/11/21 15:05	121,2540D	AC
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1473348-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	03/11/21 18:30	03/11/21 20:00	74,1664A	TL
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1473820-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	03/12/21 11:30	03/15/21 12:26	121,4500NH3-BH	JO

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1472522-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1472531-2								
Chlorine, Total Residual	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1472607-2								
Phenolics, Total	118		-		70-130	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1472621-2								
Chromium, Hexavalent	101		-		85-115	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG1472993-2								
Chloride	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1473241-2								
Cyanide, Total	90		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1473297-2								
Solids, Total Suspended	89		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 40 THORNDIKE STREET

Project Number: 134476-005

Lab Number: L2111682

Report Date: 04/15/21

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1473348-2					
TPH	98	-	64-132	-	34
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1473820-2					
Nitrogen, Ammonia	93	-	80-120	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

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: WG1472531-4 QC Sample: L2111682-01 Client ID: HA-02_2021-0309												
Chlorine, Total Residual	ND	0.25	0.28	112		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1472607-4 QC Sample: L2111682-01 Client ID: HA-02_2021-0309												
Phenolics, Total	ND	0.4	0.41	103		-	-		70-130	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1472621-4 QC Sample: L2111682-02 Client ID: RECEIVING WATER_2021-0309												
Chromium, Hexavalent	ND	0.1	0.098	98		-	-		85-115	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1472993-3 WG1472993-4 QC Sample: L2111581-06 Client ID: MS Sample												
Chloride	171	40	214	108		211	101		90-110	7		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1473241-4 QC Sample: L2111163-03 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.165	**82**	Q	-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1473348-4 QC Sample: L2111682-01 Client ID: HA-02_2021-0309												
TPH	ND	19.2	12.7	66		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1473820-4 QC Sample: L2111263-02 Client ID: MS Sample												
Nitrogen, Ammonia	3.64	4	7.66	100		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1472522-2 QC Sample: L2111496-01 Client ID: DUP Sample						
pH	7.9	7.8	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1472531-3 QC Sample: L2111682-01 Client ID: HA-02_2021-0309						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1472607-3 QC Sample: L2111682-01 Client ID: HA-02_2021-0309						
Phenolics, Total	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1472621-3 QC Sample: L2111682-01 Client ID: HA-02_2021-0309						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1473241-3 QC Sample: L2110982-02 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1473297-3 QC Sample: L2111285-01 Client ID: DUP Sample						
Solids, Total Suspended	520	520	mg/l	0		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1473348-3 QC Sample: L2110945-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1473820-3 QC Sample: L2111263-02 Client ID: DUP Sample						
Nitrogen, Ammonia	3.64	3.79	mg/l	4		20

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

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(*)
L2111682-01A	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2111682-01A1	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2111682-01B	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2111682-01B1	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2111682-01C	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2111682-01C1	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2111682-01D	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		504(14)
L2111682-01E	Vial Na2S2O3 preserved	B	NA		3.5	Y	Absent		504(14)
L2111682-01F	Vial unpreserved	B	NA		3.5	Y	Absent		SUB-ETHANOL(14)
L2111682-01G	Vial unpreserved	B	NA		3.5	Y	Absent		SUB-ETHANOL(14)
L2111682-01H	Vial unpreserved	B	NA		3.5	Y	Absent		SUB-ETHANOL(14)
L2111682-01I	Plastic 250ml unpreserved	B	7	7	3.5	Y	Absent		-
L2111682-01J	Plastic 250ml HNO3 preserved	B	<2	<2	3.5	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),HARDU(180),FE-UI(180),CU-2008T(180),SE-2008T(180),AG-2008T(180),AS-2008T(180),HG-U(28),CR-2008T(180),PB-2008T(180),SB-2008T(180)
L2111682-01K	Plastic 250ml NaOH preserved	B	>12	>12	3.5	Y	Absent		TCN-4500(14)
L2111682-01L	Plastic 500ml H2SO4 preserved	B	<2	<2	3.5	Y	Absent		NH3-4500(28)
L2111682-01M	Plastic 950ml unpreserved	B	7	7	3.5	Y	Absent		CL-300(28),HEXCR-7196(1),TRC-4500(1),PH-4500(.01)
L2111682-01N	Plastic 950ml unpreserved	B	7	7	3.5	Y	Absent		TSS-2540(7)
L2111682-01O	Amber 950ml H2SO4 preserved	B	<2	<2	3.5	Y	Absent		TPHENOL-420(28)
L2111682-01P	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		PCB-608.3(365)
L2111682-01Q	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		PCB-608.3(365)

*Values in parentheses indicate holding time in days

Project Name: 40 THORNDIKE STREET
Project Number: 134476-005

Lab Number: L2111682
Report Date: 04/15/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2111682-01R	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-RGP(7)
L2111682-01S	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-RGP(7)
L2111682-01T	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)
L2111682-01U	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)
L2111682-01V	Amber 1000ml HCl preserved	B	NA		3.5	Y	Absent		TPH-1664(28)
L2111682-01W	Amber 1000ml HCl preserved	B	NA		3.5	Y	Absent		TPH-1664(28)
L2111682-01X	Plastic 120ml HNO3 preserved Filtrates	B	NA		3.5	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2111682-02A	Plastic 250ml unpreserved	A	7	7	3.5	Y	Absent		HEXCR-7196(1),PH-4500(.01)
L2111682-02B	Plastic 250ml HNO3 preserved	A	<2	<2	3.5	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),HG-U(28),AS-2008T(180),PB-2008T(180),CR-2008T(180),SB-2008T(180)
L2111682-02C	Plastic 500ml H2SO4 preserved	A	<2	<2	3.5	Y	Absent		NH3-4500(28)

*Values in parentheses indicate holding time in days

Project Name:	40 THORNDIKE STREET	**Lab Number:**	L2111682
Project Number:	134476-005	**Report Date:**	04/15/21

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:	40 THORNDIKE STREET	**Lab Number:**	L2111682
Project Number:	134476-005	**Report Date:**	04/15/21

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 at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). 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:	40 THORNDIKE STREET	**Lab Number:**	L2111682
Project Number:	134476-005	**Report Date:**	04/15/21

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.

Report Format: Data Usability Report

Project Name:	40 THORNDIKE STREET	**Lab Number:**	L2111682
Project Number:	134476-005	**Report Date:**	04/15/21

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.

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

107 Alpha Analytical - In-house calculation method.

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

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.

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, SM4500Cl-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

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers: Browser, ME 04412 Portsmouth, NH 03801 Mahwah, NJ 07430 Albany, NY 12205 Tonawanda, NY 14150 Holmes, PA 17043

Page 1 of 1

Date Rec'd in Lab: 3/9/21

ALPHA Job #: L2111682

Project Information

Project Name: 40 Thorndike Street
Project Location: Cambridge, MA
Project #: 134476-005
(Use Project name as Project #)
Project Manager: L. Vanzler
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days: 5 Day

Deliverables

☑ Email ☐ Fax
☐ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other:

Billing Information

☐ Same as Client Info
PO #

H&A Information

H&A Client: LMP GP Holdings, LLC
H&A Address: 465 Medford Street, Suite 2200
Boston, MA 02129
H&A Phone: 617.680.2293
H&A Fax:
H&A Email: lvanzler, jthibault

Regulatory Requirements (Program/Criteria)

MA 2017 NPDES RGP

Note: Select State from menu & identify criteria.

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

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.

Please specify Metals or TAL.

Sample Filtration

☐ Done
☐ Lab to do
Preservation
☑ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Depth	1. VOCs 624.1 & 624.1-SIM	2. SVOCs 625.1 & 625.1-SIM	3. TSS 2540, TRC 4500 Cl 300, TCN	4. PCBs 608, EDB 504, TPHENOL, TPH 1664	5. Ammonia (NH3), Hex Cr, Hardness, pH	6. Ethanol	7. Total NPDES RGP Metals	8. NPDES RGP Metals (Lab Filtered) (ON HOLD)	Sample Specific Comments	Total Bottles
11682-01	HA-02 ~~[illegible]~~ 2021-0309	3/9/21	1130	AQ	SRP	1	X	X	X	X	X	X	X	X	1. 1,4-Dioxane by 624.1-SIM	26
-02	Receiving Water ~~[illegible]~~ 2021-0309	↓	1300	AQ	L	1					X		X		7. NPDES RGP Metals	3
															Includes: Ag, As, Cd, Cr, Tri C	
															Cu, Ni, Pb, Sb, Se, Zn, Fe, Hg	
															8. Lab Filtered NPDES RGP	
															Metals (ON HOLD)	

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

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3/9/21 1600	[signature]	3-9-21 1600
[signature]	3/9/21	[signature]	3-9-21 1600

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.

Document ID: 20455 Rev 3 (1/7/2019)

ALPHA ANALYTICAL

Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2111682

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:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2111682

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
	HA-02_2021-0309	03-09-21 11:30	WATER	Ethanol by EPA 1671 Revision A	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	E Sullivan	3/10/21		
Form No: AL_subcoc				

Teklab, Inc.
Environmental Laboratory
http://www.teklabinc.com/

March 16, 2021

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: L2111682 **WorkOrder:** 21030762

Dear Melissa Gulli:

TEKLAB, INC received 1 sample on 3/11/2021 9:59:00 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,

Elizabeth A. Hurley

Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com

Teklab, Inc.
Environmental Laboratory

Report Contents

http://www.teklabinc.com/

Client: Alpha Analytical
Work Order: 21030762
Client Project: L2111682
Report Date: 16-Mar-21

This reporting package includes the following:

Teklab, Inc. Environmental Laboratory

Definitions

http://www.teklabinc.com/

Client: Alpha Analytical **Work Order:** 21030762

Client Project: L2111682 **Report Date:** 16-Mar-21

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)

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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		

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Case Narrative

http://www.teklabinc.com/

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Cooler Receipt Temp: 0.2 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
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

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

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Accreditations

http://www.teklabinc.com/

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State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2021	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2021	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2021	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

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Laboratory Results

http://www.teklabinc.com/

Client: Alpha Analytical
Work Order: 21030762
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Report Date: 16-Mar-21
Lab ID: 21030762-001
Client Sample ID: HA-02_2021-0309
Matrix: AQUEOUS
Collection Date: 03/09/2021 11:30

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	03/12/2021 16:55	R288452

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Quality Control Results

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

Batch R288452 **SampType:** MBLK Units **mg/L**
SampID: MBLK-031221

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**ND**						03/12/2021

Batch R288452 **SampType:** LCS Units **mg/L**
SampID: LCS-031221

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**240**	250.0	0	95.4	70	132	03/12/2021

Batch R288452 **SampType:** MS Units **mg/L**
SampID: 21030867-003AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**230**	250.0	0	91.5	70	132	03/12/2021

Batch R288452 **SampType:** MSD Units **mg/L** RPD Limit **30**
SampID: 21030867-003AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ethanol	*	20		**230**	250.0	0	90.7	228.6	0.83	03/12/2021

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Receiving Check List

http://www.teklabinc.com/

Client: Alpha Analytical
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Carrier: UPS

Received By: EEP

Completed by: Emily Pohlman
On: 11-Mar-21

Reviewed by: Elizabeth A. Hurley
On: 11-Mar-21

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 0.2
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.

2103076 2

Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horsehoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2111682

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:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2111682

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com 0.2°C CTG 5 Ice. OHS, PLT 3/11/21

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
2103076 2-001	HA-02_2021-0309	03-09-21 11:30	WATER	Ethanol by EPA 1671 Revision A	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	Release	3/10/21	UPS	3/11/2021 0959
Form No: AL_subcoc				