

**Release Abatement Measure Plan Status Report  
No. 3**

776 SUMMER STREET  
*Boston, Massachusetts*

Prepared for HRP 776 Summer Street PropCo, LLC  
File No. 4867.02  
February 17, 2023

Massachusetts Department of Environmental Protection  
Northeast Region Office, Bureau of Waste Site Cleanup  
150 Presidential Way  
Woburn, MA 01801

February 17, 2023  
File No. 4867.02

Re: Release Abatement Measure (RAM) Status Report No. 3  
776 Summer Street  
Boston, Massachusetts  
RTN 3-37047


To whom it may concern:

Sanborn, Head & Associates, Inc. (Sanborn Head) has prepared this Release Abatement Measure (RAM) Status Report No. 3 on behalf of HRP 776 Summer Street PropCo, LLC (Client) for RAM activities being performed during deconstruction of 776 Summer Street in Boston, Massachusetts. This report has been prepared in accordance with the provisions of 310 CMR 40.0000: the Massachusetts Contingency Plan (MCP), and specifically 310 CMR 40.0445. The RAM Plan was submitted to the Massachusetts Department of Environmental Protection (DEP) on October 21, 2021.

The original Bureau of Waste Site Cleanup (BWSC) transmittal form BWSC-106: *Release Abatement Measure (RAM) Transmittal Form* and this report were submitted electronically via eDEP.

Please contact the undersigned should you have any questions.

Very truly yours,  
SANBORN, HEAD & ASSOCIATES, INC.



Patricia M. Pinto, P.E., LSP  
*Senior Vice President/Principal*

PMP: hsc

Encl. Release Abatement Measure Status Report No. 3

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## 1.0 INTRODUCTION

Sanborn, Head & Associates, Inc. (Sanborn Head) has prepared this Release Abatement Measure (RAM) Status Report No. 3 on behalf of HRP 776 Summer Street PropCo, LLC summarizing the RAM activities performed during the on-going deconstruction of an electrical power plant located at 776 Summer Street in Boston, Massachusetts (the Site). The approximate location of the Site is shown on the Locus Plan included as Figure 1. The proposed redevelopment is being constructed in two redevelopment phases. This RAM is being performed to support proper management of soil and groundwater (if encountered) during proposed earthwork activities related to utility trenching for repairs, cutting/capping, and temporary power installation that will be performed as part of deconstruction of the existing Site structures. The RAM boundaries are shown on Figure 2. The RAM activities outlined in this RAM Status Report were performed in accordance with the RAM Plan that was submitted to the Massachusetts Department of Environmental Protection (DEP) on October 21, 2021.

The RAM activities described herein are being performed within the boundary of an open Massachusetts Contingency Plan (MCP) site associated with Release Tracking Number (RTN) 3-37047. Eight other previously existing RTNs, identified as 3-12817, 3-14575, 3-26342, 3-17596, 3-22165, 3-28038, 3-32832, and 3-13007, are also located within the RAM boundary, which have previously been closed under the MCP based on the filing of Response Action Outcome (RAO) Statements (i.e., Permanent Solutions). In that regard, one Notice of Activity and Use Limitations (AUL) was previously recorded for the Site supporting a Class B-2 RAO Statement submitted for RTN 3-13007. Figure 2 shows the RAM and RTN boundaries in relation to the existing property boundaries.

During the period covered by this RAM Status Report, a new 72-hour reporting condition was identified within the RAM boundary related to the presence of non-aqueous phase liquid (NAPL) in monitoring wells within the AUL area. DEP assigned RTN 3-37874 to the NAPL condition and verbally approved Immediate Response Action (IRA) activities including assessment and NAPL removal. While RTN 3-37874 is located within the boundary of this RAM Plan, response actions for the NAPL condition are being performed under a separate but coordinated IRA.

This RAM Status Report describes RAM activities performed at the Site between August 1, 2022 and January 31, 2023. This RAM Status Report has been prepared in accordance with the requirements of 310 CMR 40.0000: *The Massachusetts Contingency Plan (MCP)*, and specifically 310 CMR 40.0445: *Release Abatement Measure Status and Remedial Monitoring Reports*. The original signed Release Abatement Measure Transmittal Form (BWSC106) was submitted electronically via eDEP. A copy of the form is included in Appendix A.

## 2.0 PERSON ASSUMING RESPONSIBILITY [310 CMR 40.0444(1)(A)]

On November 15, 2022, HRP 776 Summer Street PropCo, LLC purchased the Site from HRP 776 Summer Street, LLC, and assumed responsibility for conducting the RAM at that time. A Tier Classification Transfer was submitted on February 9, 2023 to transfer the Tier II Classification to the new owner. The entity's name, address, and telephone number are provided below:



HRP 776 Summer Street PropCo, LLC  
111 S. Wacker Drive, Suite 3000  
Chicago, Illinois 60606  
Attention: Anne Garr  
Phone: 312-283-4469

Patricia M. Pinto of Sanborn Head has assumed Licensed Site Professional (LSP) responsibilities for the work to be completed under this RAM Plan.

### **3.0 BACKGROUND**

This section provides an abbreviated description of the Site conditions, past uses and environmental regulatory history. A more detailed description is provided in the October 21, 2021 RAM Plan.

#### **3.1 General Site Conditions and History**

The Site, as shown on Figure 2, consists of one parcel comprising approximately 15 acres. For at least a century, the Site previously operated as the New Boston Generating Station, an electrical power plant. With the exception of one building, referred to as the Administration Office Building, the Site is vacant and abandoned and contains seven main structures with eight ancillary structures that were used when the Site operated as a power plant. The main facility consists of both single and multi-story structures that are in the process of being deconstructed.

The Site features consist of exhaust stacks, turbine rooms, boiler rooms, switch houses, screen houses, sheds, and electrical transformers. The eastern portion of the Site that was previously used for coal storage, wastewater operations, and contained wastewater impoundments was heavily vegetated prior to the start of deconstruction. There is a paved area to the north of the vegetated area. A water body that is part of the Reserved Channel is located in the northwestern portion of the Site.

The Site is located in a highly urbanized area of South Boston with flat topography. It is bounded to the west by Summer Street, to the south by East First Street, and to the north by the Dedicated Freight Corridor (Massport) roadway.

#### **3.2 Proposed Development and Construction**

The first phase of redevelopment activities at the Site, referred to as the Deconstruction Phase, includes removal of various structures and foundations and selective demolition of structures that are anticipated to remain and be redeveloped. The project includes removal of various infrastructure elements including, but not limited to, below grade piping systems, storm water systems, electrical distribution components, and various equipment bases and pads throughout the Site.



### 3.3 Existing Disposal Sites

Multiple MCP sites are located within the Site boundary. A summary of the MCP regulatory history for the Site is provided in the table below. The former and current MCP boundaries are shown on Figure 2.

Exhibit 1 – 776 Summer Street Disposal Sites

MCP RTN	Contaminants of Concern	Regulatory Status
3-12817	Sulfuric Acid	Permanent Solution Achieved 1/29/1996 (Class A-1 RAO)
3-14575		Permanent Solution Achieved 2/3/1997 (Class A-1 RAO)
3-26342		Permanent Solution Achieved 1/25/2007 (Class A-1 RAO)
3-17596	Fuel Oil	Permanent Solution Achieved 11/22/2000 (Class A-2 RAO)
3-22165	Lubricating Oil	Permanent Solution Achieved 12/3/2002 (Class A-1 RAO)
3-28038	Transformer Oil	Permanent Solution Achieved 10/2/2009 (Class B-1 RAO)
3-32832	Urban Fill	Permanent Solution Achieved 11/13/2017
3-13007	No. 6 Fuel Oil	Permanent Solution Achieved 9/28/2001 (Class B-2 RAO)
3-37874	No. 6 Fuel Oil	Open IRA

Redevelopment activities are being performed under the RAM Plan which was submitted to DEP on October 21, 2021. Additional information regarding the RTNs summarized in the table above is included in that submittal.

As described further herein, RTN 3-37874 is a new 72-hour reporting condition within the RAM boundary that was identified during the time period covered by this RAM Status Report. Response actions for RTN 3-37874 are being performed under a separate but coordinated IRA, and data collected that is related to the IRA is included herein for completeness.

### 4.0 STATUS OF RESPONSE ACTIONS [310 CMR 40.0445(2)(A)]

This section summarizes activities performed at the Site from August 1, 2022 through January 31, 2023. Consistent with the Soil and Groundwater Management Plan (SGMP) included in the RAM Plan, Sanborn Head serves as the LSP-of-Record for the Site. The general contractor for the owner is Suffolk Construction (Suffolk).

#### 4.1 Permitting and Utility Notifications

Necessary utility notifications, including, but not limited to, notifying Dig Safe were performed prior to the start of work. In addition, the contractor performing the work coordinated with the



City of Boston to obtain necessary trench permits, construction, and building permits, as appropriate.

#### **4.2 Health and Safety Plan and Site Preparation**

Prior to the start of work, the contractor prepared a site-specific Health and Safety Plan (HASP) for the project. The contractor performing the work instituted site controls to prevent pedestrians from entering the work site. Erosion controls (e.g., hay bales and silt fence) were also installed by the contractor as needed to help prevent the migration of suspended sediments in stormwater runoff from the property. Site controls and erosion controls were maintained during the period covered by this RAM Status Report.

#### **4.3 Managing Site Groundwater**

Groundwater dewatering activities were not required at the Site during this reporting period.

#### **4.4 Excavation and Management of Soil**

During the time period covered by this RAM Status Report, excavation activities were conducted to support deconstruction activities, including for the observation of subsurface structures and for the removal of stained concrete and gravel identified in the locations of former transformers, as shown on Figure 2.

Soil excavated during this time period was temporarily stockpiled and reused onsite in accordance with the RAM Plan and SGMP. Concrete and gravel excavated from the former transformer area with observed staining was stockpiled on-Site pending off-Site disposal, as shown on Figure 2.

#### **4.5 Unanticipated Conditions**

No unanticipated conditions were encountered during the time period covered by this RAM Status Report.

#### **5.0 SIGNIFICANT NEW SITE INFORMATION OR DATA [310 CMR 40.0445(2)(B)]**

Subsurface explorations and sampling were performed at the Site during the time period covered by this RAM Status Report for environmental assessment and geotechnical purposes. While some of these activities are not considered to be RAM activities, the assessment work is described herein for completeness because the explorations were performed within the boundary of the RAM. New Site information or data that was collected by Sanborn Head during the time period covered by this RAM Status Report includes:

- Table 1 Summary of Groundwater Analytical Data
- Table 2 Summary of Soil Analytical Data Related to RTN 3-37874
- Table 3 Summary of Groundwater Analytical Data Related to RTN 3-37874
- Table 4 Summary of Concrete and Gravel Analytical Data

The locations where these samples were collected are shown on Figures 3 and 4. A description of the sampling activities is provided below.



## 5.1 Geotechnical Soil Explorations

Between September 12 and October 11, 2022, Sanborn Head observed the advancement of six geotechnical soil borings identified as SH-301, -302, -304, -305, -307, -308 by New England Boring Contractors of Derry, New Hampshire (NEBC). The borings were advanced using drive and wash methods to depths up to 148 feet below ground surface (bgs) and Standard Penetration Tests (SPTs, ASTM D1586) were completed using 2-inch outer diameter (O.D.) split spoon samplers. Explorations were observed and logged on a full-time basis by Sanborn Head. The subsurface was observed to generally consist of urban fill overlying organic soil, silty clay, and glacial till. The approximate locations of the subsurface explorations are shown on Figure 4. Boring logs are included in Appendix B.

Two of the borings, SH-307 and SH-308, were completed as groundwater monitoring wells with well screens set at the approximate elevation of a potential future underdrain system. During drilling, Sanborn Head used a photoionization detector (PID) to perform jar headspace screening of soil samples. The PID screening results are shown on the boring logs included in Appendix B. Visual, olfactory and PID screening did not indicate the presence of significant soil contamination during advancement of the six geotechnical borings.

## 5.2 Groundwater Sampling

On October 19, 2022, Sanborn Head developed the newly installed monitoring wells SH-307 and SH-308 by removing approximately five well volumes of groundwater from the wells. During development, no evidence of contamination (i.e., a sheen, etc.) was observed, and decreasing turbidity was observed as purging progressed.

On October 26 and 28, 2022, Sanborn Head collected groundwater samples from the wells identified as SH-307 and SH-308 using low-flow sampling techniques. The locations of SH-307 and SH-308 are shown on Figure 4. The samples were submitted to Alpha Analytical Laboratories of Westborough, Massachusetts (Alpha) for analysis of volatile organic compounds (VOCs), extractable petroleum hydrocarbons (EPH) with target polycyclic aromatic hydrocarbons (PAHs), and volatile petroleum hydrocarbons (VPH). Analytical data are summarized in Table 1 and laboratory analytical reports are included in Appendix C.

As shown in Table 1, trichloroethylene (TCE) was detected in both samples and cis-1,2-dichloroethene (cDCE) was detected in the sample collected from monitoring well SH-308. The concentrations detected did not exceed applicable Reportable Concentration for GW-2 groundwater (RCGW-2) or Method 1 standards (GW-2 and GW-3).

## 5.3 RTN 3-13007 AUL Area Soil Sampling, Monitoring Well Gauging, and Sampling

On December 2 and 5, 2022, Sanborn Head observed the advancement of five soil borings identified as SH-GP-306 through SH-GP-311, SH-GP-313, and SH-GP-315 through SH-GP-319 within the AUL area associated with RTN 3-13007 in the southeastern courtyard at the Site. The purpose of the borings was to collect soil samples to delineate the extent of contamination previously identified within the AUL area. The borings were advanced by G&M Subsurface, LLC,



of North Dighton, Massachusetts (G&M) using Geoprobe direct-push methods to depths of approximately 15 to 20 feet bgs. One of the borings was completed as a groundwater monitoring well, identified as SH-GP-313W. The AUL area is shown on Figure 2 and the approximate locations of the borings and groundwater monitoring wells are shown on Figure 3. The borings were observed and logged by Sanborn Head personnel on a full-time basis. Boring logs are included in Appendix B.

Based on visual and olfactory observation of the soil and field screening using a photoionization detector (PID), soil samples were collected from the borings and submitted to Alpha for analysis of VOCs or EPH with target PAHs and VPH with target VOCs. Analytical results are summarized in Table 2 and laboratory analytical reports are included in Appendix C. As shown in Table 2, acetone, tetrachloroethene (PCE), and TCE were detected in the shallow soil samples at concentrations below the applicable MCP Method 1 S-3/GW-2 and S-3/GW-3 standards. Based on our review of the available data, it is our opinion that the soil concentrations detected are generally consistent with those previously reported for RTN 3-13007.

On December 2, 2022, Sanborn Head gauged monitoring well SH-GP-305W using an oil-water interface probe. Greater than ½ inch of NAPL was detected in the well. On December 5, 2022, Sanborn Head measured a thickness of approximately 13 inches of NAPL in well SH-GP-305W. A thickness of approximately 17 inches of NAPL was also measured in a historical monitoring well identified as "Historical MW". The 72-hour release condition was reported to DEP on December 5, 2022. DEP assigned RTN 3-37874 to the NAPL condition and verbally approved IRA activities including assessment and NAPL removal. While RTN 3-37874 is located within the boundary of this RAM Plan, response actions for the NAPL condition are being performed under a separate but coordinated IRA.

NAPL has not been observed in newly installed monitoring well SH-GP-313W. On January 11, 2023, Sanborn Head developed the newly installed monitoring well SH-GP-313W by removing approximately 10 well volumes with a peristaltic pump. On January 20, 2023, Sanborn Head collected a groundwater sample from SH-GP-313W, which was submitted to Alpha for analysis of EPH, VPH, and VOCs. Sanborn Head also collected NAPL samples from SH-GP-305W and the "Historical MW" for petroleum fingerprinting analysis. Analytical results for the groundwater analyses are summarized in Table 3.

As shown in Table 3, TCE, PCE, and cDCE were detected in the groundwater sample collected from monitoring well SH-GP-313W. The detected concentration of TCE exceeds the applicable Method 1 GW-2 standard. The laboratory analytical reports are included in Appendix C. Based on the fingerprinting analysis, the NAPL detected in both monitoring wells is similar to weathered No. 6 fuel oil/diesel fuel. Assessment activities in this area of the Site are ongoing in accordance with the IRA Plan for RTN 3-37874.

#### **5.4 Concrete and Gravel Sampling**

During the time period covered by this RAM Status Report, concrete and gravel with visual evidence of staining were excavated from a former transformer area within and adjacent to

RTN 3-28038. The visually stained gravel and concrete were segregated into separate stockpiles for disposal characterization sampling. The approximate excavation areas and stockpile locations are shown on Figure 2.

On December 30, 2022, Sanborn Head collected four samples of gravel and two samples of stained and/or coated concrete to support off-Site disposal. The samples were composited from multiple sample locations from the concrete and gravel stockpiles using hand sampling methods. The samples were submitted to Alpha for analysis of a typical pre-characterization suite of analyses including VOCs, semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), MCP-14 metals, conductivity, reactivity, pH, and ignitability. Toxicity characteristic leaching procedure (TCLP) lead analyses were also performed for samples where the total lead concentration exceeds twenty times the Resource Conservation and Recovery Act (RCRA) Characteristic Hazardous Waste limit. Analytical results are summarized in Table 4 and analytical laboratory reports are included in Appendix C.

As shown on Table 4, VOCs, SVOCs, TPH, PCBs, and metals were detected in each of the samples. Certain analytes were detected at concentrations exceeding the RCS-1 standards in the gravel stockpile samples. No RCS-1 exceedances were detected in the concrete samples. The concrete and gravel stockpiles are proposed for off-site shipment to disposal facilities based on the pre-characterization results. Off-Site shipment is currently being arranged and shipping information will be included in a future RAM submittal.

## **6.0 MANAGEMENT OF REMEDIATION WASTE, REMEDIAL WASTEWATER AND/OR REMEDIAL ADDITIVES [310 CMR 40.0445(2)(C)]**

No off-Site soil shipment was required during the time period covered by this RAM Status Report.

While not considered to be Remediation Waste, two drums of drill cuttings previously generated during the drilling activities at SH-202 were shipped off-Site by U.S. Ecology on January 20, 2023. Shipping documentation will be included in a future RAM submittal.

One drum of used bailers and PPE generated during the NAPL investigation for RTN 3-37874 was generated on December 5, 2022 and is staged on-Site pending off-Site disposal. Documentation of the drum shipment will be performed under the IRA for RTN 3-37874.

## **7.0 ENVIRONMENTAL MONITORING PLAN [310 CMR 40.0444(1)(E)]**

Six TSI DustTrak™ continuous monitoring devices were deployed around the Site perimeter on October 12th, 2021. On November 5 and 9, 2022, the DustTrak units were replaced by Aeroqual Dust Sentry monitoring devices. The approximate locations of the dust monitoring setups are shown on Figure 5. The Dust Sentry monitoring stations record dust concentrations on a continuous basis. The dust monitors are stored in weatherproof enclosures and include remote telemetry systems to transmit the data in real time.



The daily average PM10 dust monitoring data from August 1 to January 31, 2022 are included in Appendix D. During the time period covered by this RAM Status Report, the action level of 150 microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) was not exceeded based on a 24-hour time weighted average.

#### **8.0 ADDITIONAL INFORMATION REQUIRED BY DEP [310 CMR 40.0444(1)(I)]**

DEP has not requested additional information regarding the implementation of the RAM Plan since the RAM Plan was prepared and submitted to DEP.

#### **9.0 LSP OPINION [310 CMR 40.0445(2)(E)]**

In summary, the RAM activities for the project Site in Boston, Massachusetts are proceeding in accordance with the requirements outlined in the RAM Plan, which was submitted to DEP on October 21, 2021. The next RAM Status Report will be submitted within six months of submitting this report as required by 310 CMR 40.0445. The required LSP Opinion and signature are provided in the original signed RAM Transmittal Form (BWSC-106), which was submitted electronically.

#### **10.0 LIMITATIONS**

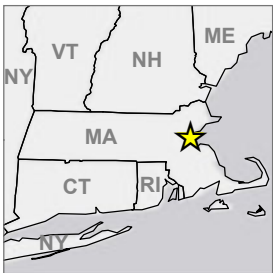
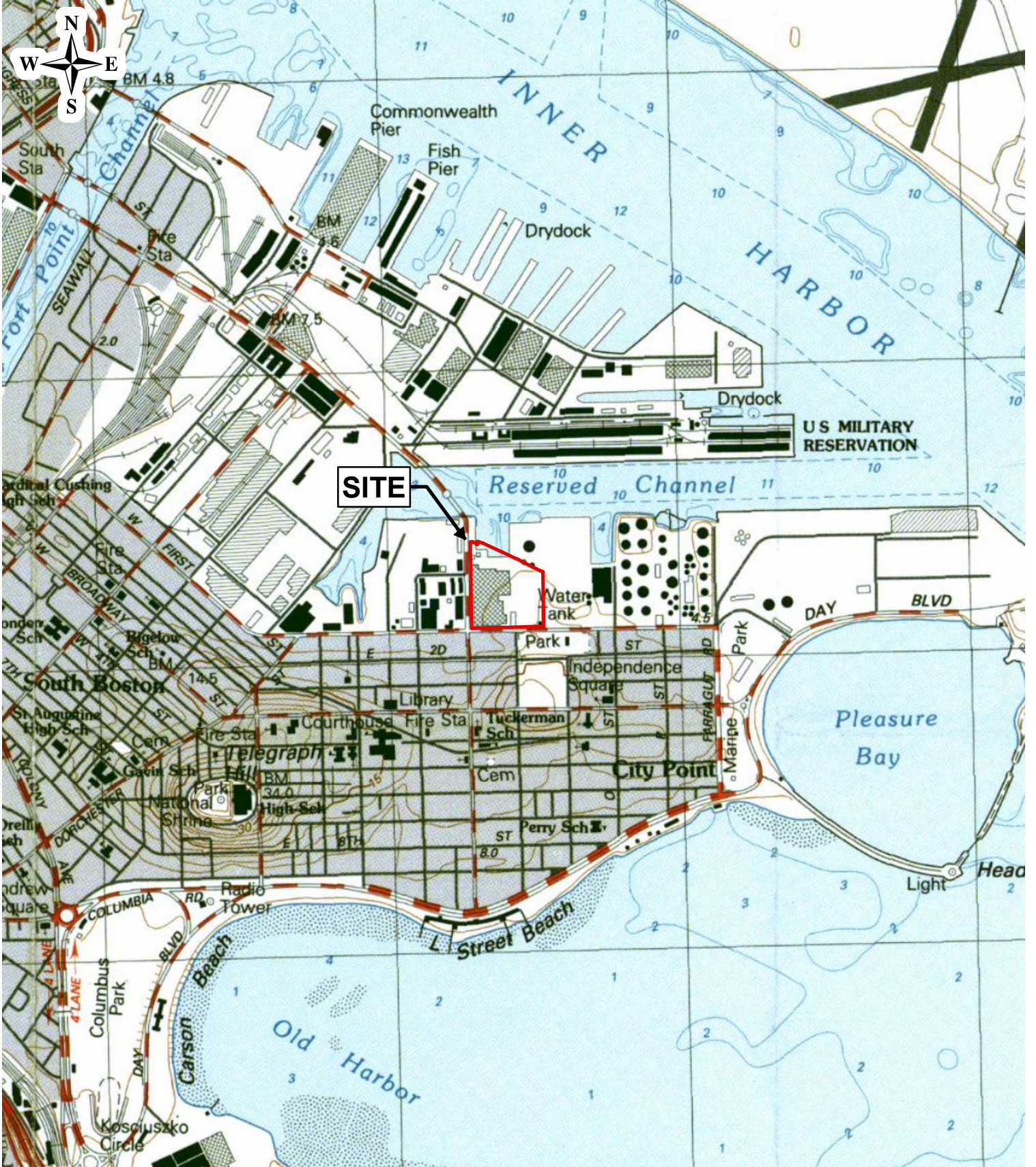
This MCP document has been prepared for and is intended for the exclusive use of HRP 776 Summer Street PropCo, LLC for construction activities at the 776 Summer Street property. The contents and findings of this report should not be relied upon by any other party without the express written consent of Sanborn Head.

In performing this work, Sanborn Head has endeavored to conform with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. Sanborn Head has attempted to observe a degree of care and skill generally exercised by the technical community under similar circumstances and conditions. Sanborn Head's findings and conclusions must be considered probabilities based on professional judgment concerning the significance of the limited data gathered during the course of this work. This report is also subject to the Limitations in Appendix E.

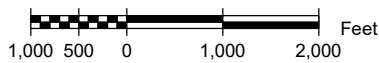
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## Figures



Drawn By: E. Wright  
 Designed By: H. Child  
 Reviewed By: P. Pinto  
 Project No: 4867.02  
 Date: February 2023



**SANBORN HEAD**

Figure 1

# Locus Plan

RAM Status Report No. 3

RTN 3-37047

776 Summer Street  
Boston, Massachusetts

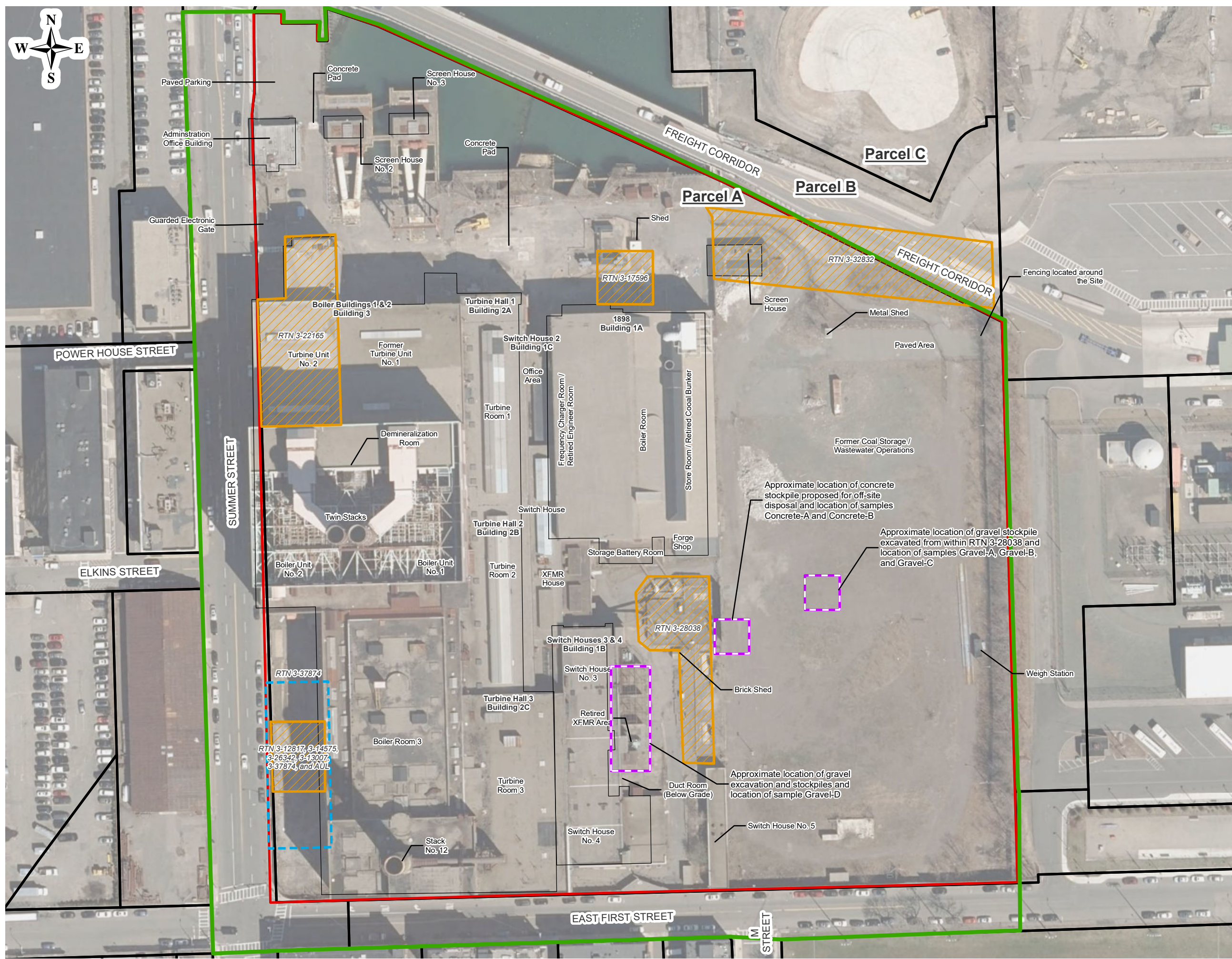


Figure 2

# Site Plan

RAM Status Report No. 3

RTN 3-37047

776 Summer Street  
Boston, Massachusetts

Drawn By:	H. LaPointe / E. Wright
Designed By:	H. Child
Reviewed By:	P. Pinto
Project No:	4867.02
Date:	February 2023

## Figure Narrative

Site features shown should be considered approximate and based on observations made during a Site reconnaissance performed by Sanborn Head on August 2, 2021 and information from prior MP reports.

## Notes

1. Aerial image source: Massachusetts 2019 USGS Color Ortho Imagery.

## Legend

- Approximate Site boundary
- RAM Boundary
- Approximate boundary of Closed Release Tracking Number (RTN) area
- Approximate boundary of Open Release Tracking Number (RTN) 3-37874 area

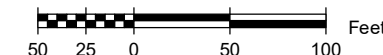




Figure 3

# Exploration Location Plan

RAM Status Report No. 3

RTN 3-37047

776 Summer Street  
Boston, Massachusetts

Drawn By: H. LaPointe / E. Wright  
 Designed By: H. Child  
 Reviewed By: P. Pinto  
 Project No: 4867.02  
 Date: February 2023

## Figure Narrative

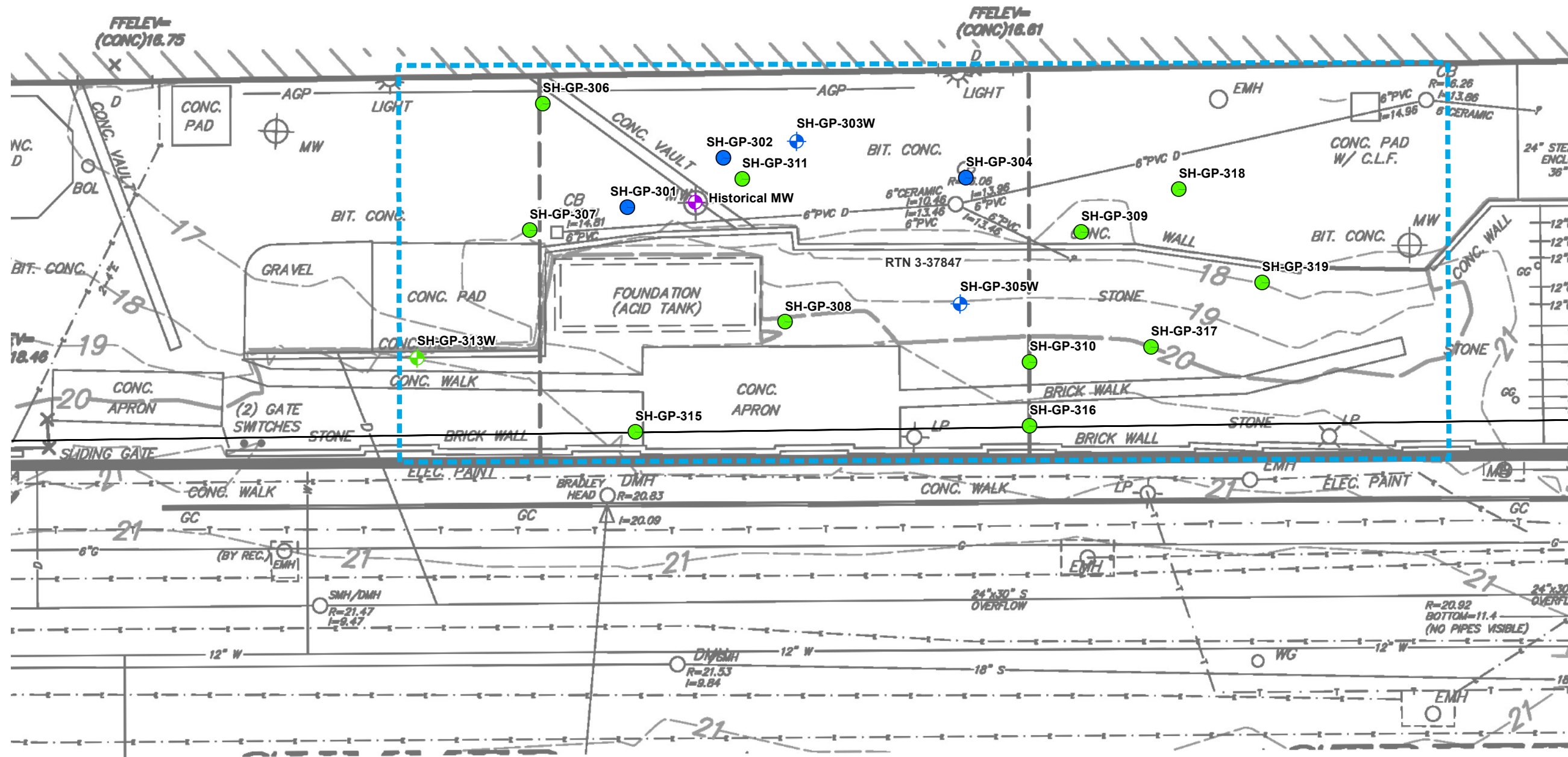
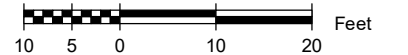
This figure shows exploration locations and site vicinity.

## Notes

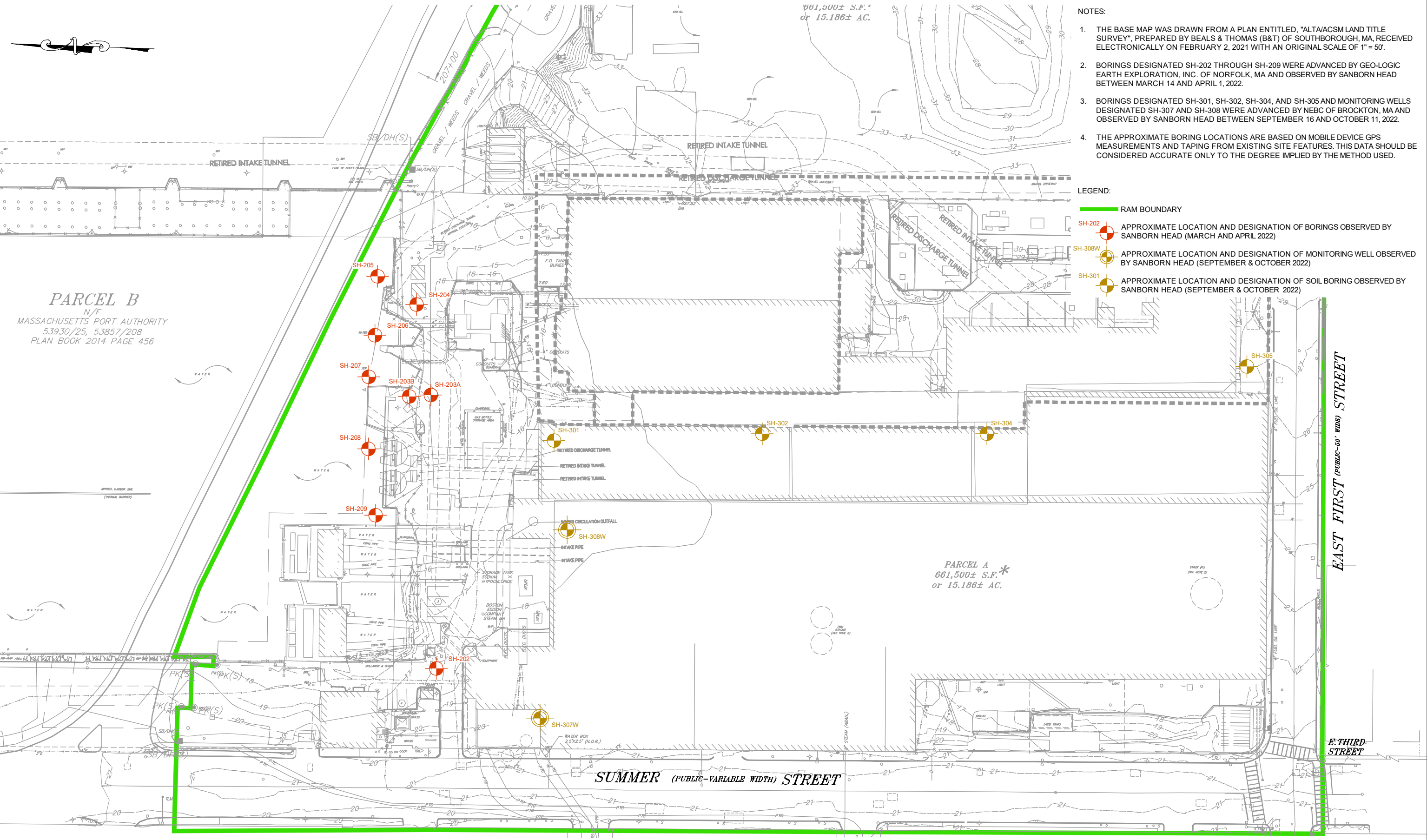
- Basemap from "C1.0 TOPOGRAPHIC PLAN" drawn 2/19/2021 and provided by Beals and Thomas, Inc.
- Borings were advanced by subcontractors on the dates shown in the legend.
- The approximate boring locations are based on tape measurements from existing features. Data should be considered accurate only to the degree implied by the method used.

## Legend

- Approximate Parcel Boundary
- Approximate AUL Boundary
- Approximate Preliminary Boundary for Open RTN 3-37874
- Approximate Location and Designation of Monitoring Well Observed by Sanborn Head (June 2022)
- Approximate Location and Designation of Soil Boring Observed by Sanborn Head (June 2022)
- Approximate Location and Designation of Monitoring Well Observed by Sanborn Head (December 2022)
- Approximate Location and Designation of Soil Boring Observed by Sanborn Head (December 2022)
- Approximate Location of Historical Monitoring Well Installed by Others



033 SANBORN HEAD & ASSOCIATES  
 100 STATE STREET, SUITE 200, BOSTON, MA 02109  
 TEL: 617-552-3300 FAX: 617-552-3301  
 WWW.SANBORNHEAD.COM  
 PROJECT: 776 SUMMER STREET, BOSTON, MA  
 SHEET: GEOTECHNICAL SUBSURFACE EXPLORATION LOCATION PLAN  
 DATE: 02/2023

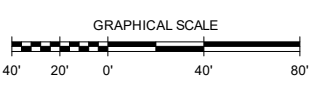


- NOTES:**
- THE BASE MAP WAS DRAWN FROM A PLAN ENTITLED, "ALTA/ACSM LAND TITLE SURVEY", PREPARED BY BEALS & THOMAS (B&T) OF SOUTHBOROUGH, MA, RECEIVED ELECTRONICALLY ON FEBRUARY 2, 2021 WITH AN ORIGINAL SCALE OF 1" = 50'.
  - BORINGS DESIGNATED SH-202 THROUGH SH-209 WERE ADVANCED BY GEO-LOGIC EARTH EXPLORATION, INC. OF NORFOLK, MA AND OBSERVED BY SANBORN HEAD BETWEEN MARCH 14 AND APRIL 1, 2022.
  - BORINGS DESIGNATED SH-301, SH-302, SH-304, AND SH-305 AND MONITORING WELLS DESIGNATED SH-307 AND SH-308 WERE ADVANCED BY NEBC OF BROCKTON, MA AND OBSERVED BY SANBORN HEAD BETWEEN SEPTEMBER 16 AND OCTOBER 11, 2022.
  - THE APPROXIMATE BORING LOCATIONS ARE BASED ON MOBILE DEVICE GPS MEASUREMENTS AND TAPING ON EXISTING SITE FEATURES. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

- LEGEND:**
- RAM BOUNDARY
  - SH-202 APPROXIMATE LOCATION AND DESIGNATION OF BORINGS OBSERVED BY SANBORN HEAD (MARCH AND APRIL 2022)
  - SH-308W APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL OBSERVED BY SANBORN HEAD (SEPTEMBER & OCTOBER 2022)
  - SH-301 APPROXIMATE LOCATION AND DESIGNATION OF SOIL BORING OBSERVED BY SANBORN HEAD (SEPTEMBER & OCTOBER 2022)

**PARCEL B**  
 N/F  
 MASSACHUSETTS PORT AUTHORITY  
 539.30/25, 538.57/208  
 PLAN BOOK 2014 PAGE 456

**PARCEL A**  
 661,500± S.F.\*  
 or 15.186± AC.

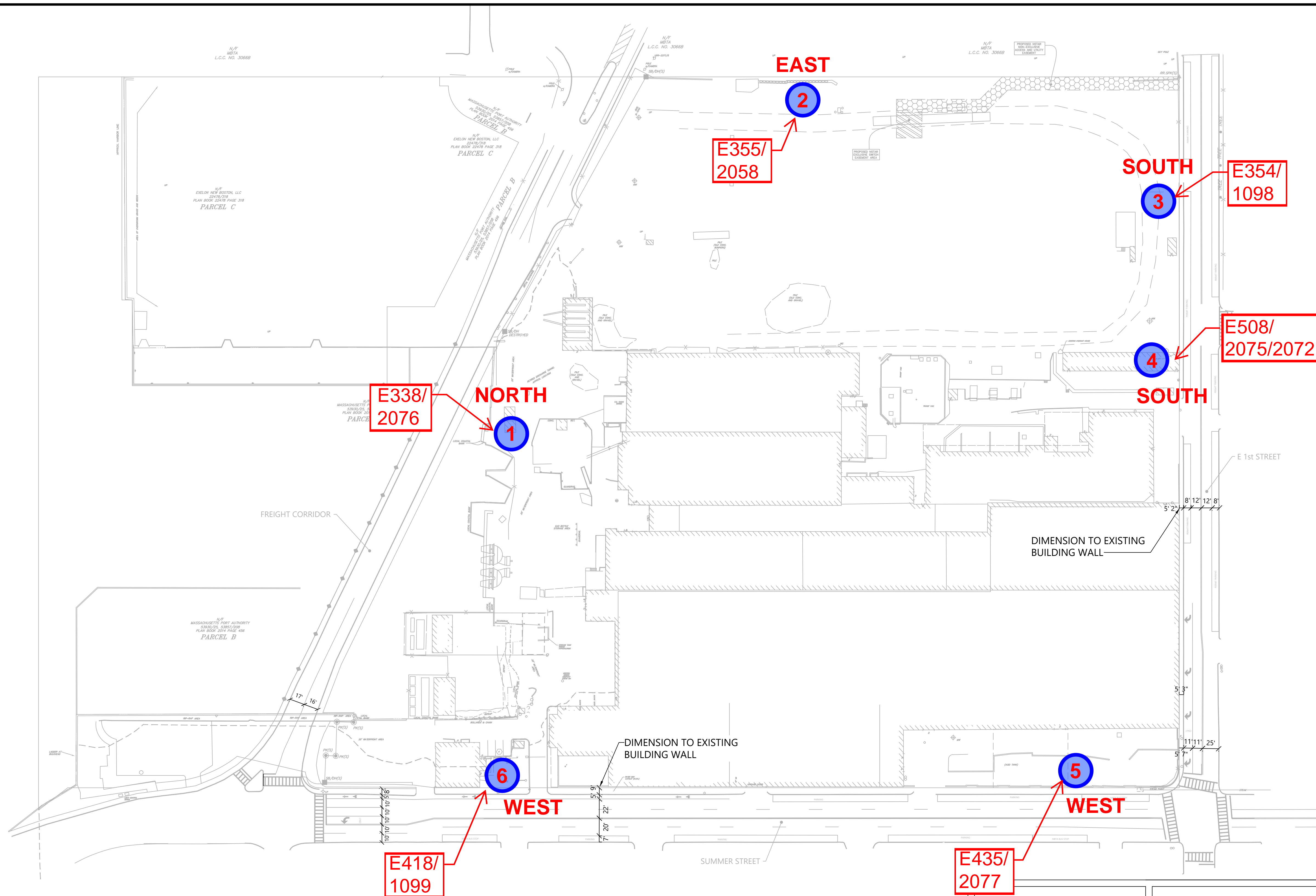


NO.	DATE	DESCRIPTION	BY

DRAWN BY: E. WRIGHT  
 DESIGNED BY: H. CHILD  
 REVIEWED BY: A. COEN  
 PROJECT MGR: A. COEN  
 PIC: P. PINTO  
 DATE: FEBRUARY 2023

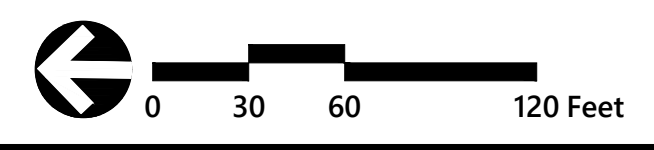
RAM STATUS REPORT NO. 3  
 776 SUMMER STREET  
 BOSTON, MASSACHUSETTS  
 PROJECT NUMBER: 4867.02  
 GEOTECHNICAL SUBSURFACE EXPLORATION LOCATION PLAN  
 FIGURE NUMBER: 4





**776 Summer Street - Deconstruction**  
 SOUTH BOSTON  
 EXISTING CONDITIONS

**FIGURE 5**  
**DUST MONITORING LOCATION PLAN**



## Tables

**Table 1**  
**Summary of Groundwater Analytical Data**  
776 Summer Street  
Boston, Massachusetts

SAMPLE LOCATION	MCP RCGW-2	MCP Method 1		Units	SH-307	SH-308
		GW-2	GW-3		10/26/2022	10/28/2022
LABORATORY SAMPLE ID					L2260420-01	L2260420-02
<b>Volatile Organic Compounds</b>						
Dichloroethene (cis-1,2-)	20	20	50,000	µg/L	<1	<b>4.5</b>
Dichloroethene (total 1,2-)	100	NS	NS	µg/L	<1	<b>4.5</b>
Trichloroethene (TCE)	5	5	5,000	µg/L	<b>1.4</b>	<b>4.8</b>
<b>Extractable Petroleum Hydrocarbons</b>						
Acenaphthene	10,000	NS	10,000	µg/L	<10	<10
Acenaphthylene	40	10,000	40	µg/L	<10	<10
Anthracene	30	NS	30	µg/L	<10	<10
Benzo(a)anthracene	1,000	NS	1,000	µg/L	<10	<10
Benzo(a)pyrene	500	NS	500	µg/L	<10	<10
Benzo(b)fluoranthene	400	NS	400	µg/L	<10	<10
Benzo(g,h,i)perylene	20	NS	20	µg/L	<10	<10
Benzo(k)fluoranthene	100	NS	100	µg/L	<10	<10
Chrysene	70	NS	70	µg/L	<10	<10
Dibenz(a,h)anthracene	40	NS	40	µg/L	<10	<10
Fluoranthene	200	NS	200	µg/L	<10	<10
Fluorene	40	NS	40	µg/L	<10	<10
Indeno(1,2,3-cd)pyrene	100	NS	100	µg/L	<10	<10
Methylnaphthalene (2-)	2,000	2,000	20,000	µg/L	<10	<10
Naphthalene	700	700	20,000	µg/L	<10	<10
Phenanthrene	10,000	NS	10,000	µg/L	<10	<10
Pyrene	20	NS	20	µg/L	<10	<10
TPH C11-C22 Aromatic	5,000	50,000	5,000	µg/L	<100	<100
TPH C11-C22 Aromatic Unadjusted	5,000	50,000	5,000	µg/L	<100	<100
TPH C19-C36 Aliphatic Unadjusted	50,000	NS	50,000	µg/L	<100	<100
TPH C9-C18 Aliphatic	5,000	5,000	50,000	µg/L	<100	<100
<b>Volatile Petroleum Hydrocarbons</b>						
TPH C5-C8 Aliphatic	3,000	3,000	50,000	µg/L	<100	<100
TPH C5-C8 Aliphatic Unadjusted	3,000	3,000	50,000	µg/L	<100	<100
TPH C9-C10 Aromatic	4,000	4,000	50,000	µg/L	<100	<100
TPH C9-C12 Aliphatic	5,000	5,000	50,000	µg/L	<100	<100
TPH C9-C12 Aliphatic Unadjusted	5,000	5,000	50,000	µg/L	<100	<100

Notes:

1. Samples were collected on the dates indicated by Sanborn, Head & Associates and analyzed by Alpha Analytical, Inc. of Westford, Massachusetts.
2. Only VOC analytes detected above laboratory reporting limits are shown. Refer to the laboratory report for the full list of analytes.
3. Analytical data are compared to MCP (Massachusetts Contingency Plan) Reportable Concentrations for GW-2 groundwater (RCGW-2) and Method 1 Standards for GW-2 and GW-3 groundwater. Bolded values indicate detections above laboratory reporting limits. There were no exceedances of RCGW-2 or Method 1 standards.
4. Abbreviations and symbols:  
NS = No standard  
TPH = Total petroleum hydrocarbons  
VOCs = Volatile organic compounds  
µg/L = micrograms per liter  
< = Analyte not detected above reporting limit shown

**Table 2**  
**Summary of Soil Analytical Data Related to RTN 3-37874**

776 Summer Street  
 Boston, Massachusetts

LOCATION	Method 1 S-3/GW-2	Method 1 S-3/GW-3	Units	SH-GP-306	SH-GP-306	SH-GP-306	SH-GP-307	SH-GP-307	SH-GP-307	SH-GP-308	SH-GP-308	SH-GP-308	SH-GP-309	SH-GP-309	
SAMPLE DATE				12/2/2022	12/2/2022	12/2/2022	12/5/2022	12/5/2022	12/5/2022	12/2/2022	12/2/2022	12/2/2022	12/2/2022	12/2/2022	12/2/2022
LAB SAMPLE ID				L2267824-01	L2267824-02	L2267824-03	L2268107-10	L2268107-11	L2268107-12	L2267824-04	L2267824-05	L2267824-06	L2267824-10	L2267824-11	
START DEPTH (ft)				6	10	12	6	13	14.5	3	12	11	3	10	
END DEPTH (ft)	6	15	12	6	15	14.5	3	12	13.2	3	15				
<b>Volatile Organic Compounds</b>															
Acetone	50	400	mg/kg	<0.02	-	-	<0.024	-	-	<0.019	-	-	<0.016	-	
Tetrachloroethene (PCE)	10	1,000	mg/kg	<0.00039	-	-	<b>0.07</b>	-	-	<0.00039	-	-	<b>0.0016</b>	-	
Trichloroethene (TCE)	0.3	60	mg/kg	<0.00039	-	-	<b>0.0041</b>	-	-	<b>0.00048</b>	-	-	<b>0.0011</b>	-	
<b>Polycyclic Aromatic Hydrocarbons</b>															
Acenaphthene	5,000	5,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Acenaphthylene	600	10	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Anthracene	5,000	5,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Benzo(a)anthracene	300	300	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Benzo(a)pyrene	30	30	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Benzo(b)fluoranthene	300	300	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Benzo(g,h,i)perylene	5,000	5,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Benzo(k)fluoranthene	3,000	3,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Chrysene	3,000	3,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Dibenz(a,h)anthracene	30	30	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Fluoranthene	5,000	5,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Fluorene	5,000	5,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Indeno(1,2,3-cd)pyrene	300	300	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Methylnaphthalene (2-)	80	500	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Naphthalene	20	3,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Phenanthrene	3,000	3,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
Pyrene	5,000	5,000	mg/kg	-	<0.354	-	-	<0.358	-	-	-	<0.355	-	<0.367	
<b>Extractable Petroleum Hydrocarbons - Target Ranges</b>															
TPH C11-C22 Aromatics	5,000	5,000	mg/kg	-	<7.09	-	-	<7.16	-	-	-	<7.09	-	<7.33	
TPH C19-C36 Aliphatics	5,000	5,000	mg/kg	-	<7.09	-	-	<7.16	-	-	-	<7.09	-	<7.33	
TPH C9-C18 Aliphatics	5,000	5,000	mg/kg	-	<7.09	-	-	<7.16	-	-	-	<7.09	-	<7.33	
<b>Volatile Petroleum Hydrocarbons - Target Ranges</b>															
TPH C5-C8 Aliphatic	500	500	mg/kg	-	-	<4.11	-	-	<3.9	-	<3.57	-	-	-	
TPH C9-C10 Aromatic	500	500	mg/kg	-	-	<4.11	-	-	<3.9	-	<3.57	-	-	-	
TPH C9-C12 Aliphatic	5,000	5,000	mg/kg	-	-	<4.11	-	-	<3.9	-	<3.57	-	-	-	

**Table 2**  
**Summary of Soil Analytical Data Related to RTN 3-37874**

776 Summer Street  
 Boston, Massachusetts

LOCATION														
SAMPLE DATE	Method 1 S-3/GW-2	Method 1 S-3/GW-3	Units	SH-GP-309	SH-GP-310	SH-GP-310	SH-GP-310	SH-GP-311	SH-GP-311	SH-GP-313	SH-GP-313	SH-GP-313	SH-GP-315	SH-GP-316
LAB SAMPLE ID				12/2/2022	12/2/2022	12/2/2022	12/2/2022	12/5/2022	12/5/2022	12/5/2022	12/5/2022	12/5/2022	12/5/2022	12/5/2022
START DEPTH (ft)				L2267824-12	L2267824-07	L2267824-08	L2267824-09	L2268107-13	L2268107-14	L2268107-07	L2268107-08	L2268107-09	L2271314-02	L2271314-01
END DEPTH (ft)				12.5	6	17.5	19	15	17.5	3	15.5	13	3	3
<b>Volatile Organic Compounds</b>														
Acetone	50	400	mg/kg	-	0.031	-	-	-	-	<0.021	-	-	<0.017	<0.026
Tetrachloroethene (PCE)	10	1,000	mg/kg	-	0.0005	-	-	-	-	<0.00041	-	-	<0.00035	0.0011
Trichloroethene (TCE)	0.3	60	mg/kg	-	0.004	-	-	-	-	<0.00041	-	-	0.00047	0.0013
<b>Polycyclic Aromatic Hydrocarbons</b>														
Acenaphthene	5,000	5,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Acenaphthylene	600	10	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Anthracene	5,000	5,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Benzo(a)anthracene	300	300	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Benzo(a)pyrene	30	30	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Benzo(b)fluoranthene	300	300	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Benzo(g,h,i)perylene	5,000	5,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Benzo(k)fluoranthene	3,000	3,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Chrysene	3,000	3,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Dibenz(a,h)anthracene	30	30	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Fluoranthene	5,000	5,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Fluorene	5,000	5,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Indeno(1,2,3-cd)pyrene	300	300	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Methylnaphthalene (2-)	80	500	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Naphthalene	20	3,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Phenanthrene	3,000	3,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
Pyrene	5,000	5,000	mg/kg	-	-	<0.374	-	<0.35	-	-	-	<0.366	-	-
<b>Extractable Petroleum Hydrocarbons - Target Ranges</b>														
TPH C11-C22 Aromatics	5,000	5,000	mg/kg	-	-	<7.49	-	<7.01	-	-	-	<7.31	-	-
TPH C19-C36 Aliphatics	5,000	5,000	mg/kg	-	-	<7.49	-	<7.01	-	-	-	<7.31	-	-
TPH C9-C18 Aliphatics	5,000	5,000	mg/kg	-	-	<7.49	-	<7.01	-	-	-	<7.31	-	-
<b>Volatile Petroleum Hydrocarbons - Target Ranges</b>														
TPH C5-C8 Aliphatic	500	500	mg/kg	<3.98	-	-	<3.53	-	<3.67	-	<5.08	-	-	-
TPH C9-C10 Aromatic	500	500	mg/kg	<3.98	-	-	<3.53	-	<3.67	-	<5.08	-	-	-
TPH C9-C12 Aliphatic	5,000	5,000	mg/kg	<3.98	-	-	<3.53	-	<3.67	-	<5.08	-	-	-

**Table 2**  
**Summary of Soil Analytical Data Related to RTN 3-37874**

776 Summer Street  
Boston, Massachusetts

Notes:

1. Samples were collected on the dates indicated by Sanborn, Head & Associates and analyzed by Alpha Analytical, Inc. of Westford, Massachusetts.

2. Only VOCs detected above laboratory reporting limits are shown. Refer to the laboratory report for the full list of analytes.

3. Analytical data are compared to MCP (Massachusetts Contingency Plan) Reportable Concentrations for S-1 Soils (RCS-1). Bolded values indicate detections above laboratory reporting limits. Exceedances of RCS-1 were not detected.

4. Abbreviations and symbols:

TPH = Total petroleum hydrocarbons

SVOCs = Semivolatile organic compounds

VOCs = Volatile organic compounds

mg/kg = milligrams per kilogram

< = Analyte not detected above reporting limit shown

**Table 3**  
**Summary of Groundwater Analytical Results Related to RTN 3-37874**  
776 Summer Street  
South Boston, Massachusetts

SAMPLE LOCATION	MCP Method 1		MCP RCGW-2	Units	SH-GP-313W
	GW-2	GW-3			1/20/2023
					L2303598-01
<b>Volatile Organic Compounds</b>					
Acetone	50,000	50,000	50,000	µg/L	<5
Benzene	1,000	10,000	1,000	µg/L	<0.5
Bromobenzene	NS	NS	10,000	µg/L	<2
Bromochloromethane	NS	NS	NS	µg/L	<2
Bromodichloromethane	6	50,000	6	µg/L	<1
Bromoform	700	50,000	700	µg/L	<2
Bromomethane	7	800	7	µg/L	<2
Butanone (2-) (MEK)	50,000	50,000	50,000	µg/L	<5
Butylbenzene (n-)	NS	NS	NS	µg/L	<2
Butylbenzene (sec-)	NS	NS	NS	µg/L	<2
Butylbenzene (tert-)	NS	NS	10,000	µg/L	<2
Carbon disulfide	NS	NS	10,000	µg/L	<2
Carbon tetrachloride	2	5,000	2	µg/L	<1
Chlorobenzene (Monochlorobenzene)	200	1,000	200	µg/L	<1
Chloroethane	NS	NS	10,000	µg/L	<2
Chloroform (Trichloromethane)	50	20,000	50	µg/L	<1
Chloromethane	NS	NS	10,000	µg/L	<2
Chlorotoluene (2-)	NS	NS	10,000	µg/L	<2
Chlorotoluene (4-)	NS	NS	NS	µg/L	<2
Dibromo-3-chloropropane (1,2-) (DBCP)	NS	NS	1,000	µg/L	<2
Dibromochloromethane	20	50,000	20	µg/L	<1
Dibromoethane (1,2-) (Ethylene Dibromide)	2	50,000	2	µg/L	<2
Dibromomethane	NS	NS	50,000	µg/L	<2
Dichlorobenzene (1,2-)	8,000	2,000	2,000	µg/L	<1
Dichlorobenzene (1,3-)	6,000	50,000	6,000	µg/L	<1
Dichlorobenzene (1,4-)	60	8,000	60	µg/L	<1
Dichlorodifluoromethane (CFC12)	NS	NS	100,000	µg/L	<2
Dichloroethane (1,1-)	2,000	20,000	2,000	µg/L	<1
Dichloroethane (1,2-)	5	20,000	5	µg/L	<1
Dichloroethene (1,1-)	80	30,000	80	µg/L	<1
Dichloroethene (cis-1,2-)	20	50,000	20	µg/L	<b>7.4</b>
Dichloroethene (total 1,2-)	NS	NS	100	µg/L	<b>7.4</b>
Dichloroethene (trans-1,2-)	80	50,000	80	µg/L	<1
Dichloropropane (1,2-)	3	50,000	3	µg/L	<1
Dichloropropane (1,3-)	NS	NS	50,000	µg/L	<2
Dichloropropane (2,2-)	NS	NS	NS	µg/L	<2
Dichloropropene (1,1-)	NS	NS	NS	µg/L	<2
Dichloropropene (1,3-)	10	200	10	µg/L	<0.4
Dichloropropene (cis-1,3-)	10	200	5	µg/L	<0.4
Dichloropropene (trans-1,3-)	10	200	5	µg/L	<0.4
Diethyl Ether (Ethyl Ether)	NS	NS	10,000	µg/L	<2
Diisopropyl Ether (DIPE)	NS	NS	10,000	µg/L	<2
Dioxane (1,4-)	6,000	50,000	6,000	µg/L	<250
Ethyl tert butyl ether (ETBE)	NS	NS	NS	µg/L	<2

**Table 3**  
**Summary of Groundwater Analytical Results Related to RTN 3-37874**  
776 Summer Street  
South Boston, Massachusetts

SAMPLE LOCATION SAMPLE DATE LABORATORY SAMPLE ID	MCP Method 1		MCP RCGW-2	Units	SH-GP-313W
	GW-2	GW-3			1/20/2023
					L2303598-01
Ethylbenzene	20,000	5,000	5,000	µg/L	<1
Hexachlorobutadiene	50	3,000	50	µg/L	<0.6
Hexanone (2-)	NS	NS	10,000	µg/L	<5
Isopropylbenzene (Cumene)	NS	NS	100,000	µg/L	<2
Isopropyltoluene (4-)	NS	NS	10,000	µg/L	<2
Methyl-2-pentanone (4-) (MIBK)	50,000	50,000	50,000	µg/L	<5
Methylene Chloride (Dichloromethane)	2,000	50,000	2,000	µg/L	<2
Methyl-tert Butyl Ether (MTBE)	50,000	50,000	5,000	µg/L	<2
Naphthalene	700	20,000	700	µg/L	<2
Propylbenzene (n-)	NS	NS	10,000	µg/L	<2
Styrene	100	6,000	100	µg/L	<1
Tert Amyl Methyl Ether (TAME)	NS	NS	NS	µg/L	<2
Tetrachloroethane (1,1,1,2-)	10	50,000	10	µg/L	<1
Tetrachloroethane (1,1,2,2-)	9	50,000	9	µg/L	<1
Tetrachloroethene (PCE)	50	30,000	50	µg/L	<b>11</b>
Tetrahydrofuran	NS	NS	50,000	µg/L	<2
Toluene	50,000	40,000	40,000	µg/L	<1
Trichlorobenzene (1,2,3-)	NS	NS	NS	µg/L	<2
Trichlorobenzene (1,2,4-)	200	50,000	200	µg/L	<2
Trichloroethane (1,1,1-)	4,000	20,000	4,000	µg/L	<1
Trichloroethane (1,1,2-)	900	50,000	900	µg/L	<1
Trichloroethene (TCE)	5	5,000	5	µg/L	<b>15</b>
Trichlorofluoromethane (CFC11)	NS	NS	100,000	µg/L	<2
Trichloropropane (1,2,3-)	NS	NS	10,000	µg/L	<2
Trimethylbenzene (1,2,4-)	NS	NS	100,000	µg/L	<2
Trimethylbenzene (1,3,5-)	NS	NS	1,000	µg/L	<2
Vinyl chloride	2	50,000	2	µg/L	<1
Xylene (m,p-)	3,000	5,000	NS	µg/L	<2
Xylene (o-)	3,000	5,000	3,000	µg/L	<1
Xylenes (total)	3,000	5,000	3,000	µg/L	<1
<b>Extractable Petroleum Hydrocarbons</b>					
Acenaphthene	NS	10,000	10,000	µg/L	<10
Acenaphthylene	10,000	40	40	µg/L	<10
Anthracene	NS	30	30	µg/L	<10
Benzo(a)anthracene	NS	1,000	1,000	µg/L	<10
Benzo(a)pyrene	NS	500	500	µg/L	<10
Benzo(b)fluoranthene	NS	400	400	µg/L	<10
Benzo(g,h,i)perylene	NS	20	20	µg/L	<10
Benzo(k)fluoranthene	NS	100	100	µg/L	<10
Chrysene	NS	70	70	µg/L	<10
Dibenz(a,h)anthracene	NS	40	40	µg/L	<10
Fluoranthene	NS	200	200	µg/L	<10
Fluorene	NS	40	40	µg/L	<10
Indeno(1,2,3-cd)pyrene	NS	100	100	µg/L	<10
Methylnaphthalene (2-)	2,000	20,000	2,000	µg/L	<10



**Table 3**  
**Summary of Groundwater Analytical Results Related to RTN 3-37874**  
776 Summer Street  
South Boston, Massachusetts

SAMPLE LOCATION	MCP Method 1		MCP RCGW-2	Units	SH-GP-313W
	GW-2	GW-3			1/20/2023
					L2303598-01
Naphthalene	700	20,000	700	µg/L	<10
Phenanthrene	NS	10,000	10,000	µg/L	<10
Pyrene	NS	20	20	µg/L	<10
TPH C11-C22 Aromatic	50,000	5,000	5,000	µg/L	<100
TPH C19-C36 Aliphatic		50,000	50,000	µg/L	<100
TPH C9-C18 Aliphatic	5,000	50,000	5,000	µg/L	<100
<b>Volatile Petroleum Hydrocarbons</b>					
Benzene	1,000	10,000	1,000	µg/L	<2
Ethylbenzene	20,000	5,000	5,000	µg/L	<2
Methyl-tert Butyl Ether (MTBE)	50,000	50,000	5,000	µg/L	<3
Naphthalene	700	20,000	700	µg/L	<4
Toluene	50,000	40,000	40,000	µg/L	<2
TPH C5-C8 Aliphatic	3,000	50,000	3,000	µg/L	<100
TPH C9-C10 Aromatic	4,000	50,000	4,000	µg/L	<100
TPH C9-C12 Aliphatic	5,000	50,000	5,000	µg/L	<100
Xylene (m,p-)	3,000	5,000	NS	µg/L	<2
Xylene (o-)	3,000	5,000	3,000	µg/L	<2

1. Soil samples were collected by Sanborn, Head & Associates, Inc. (Sanborn Head) on the indicated dates and were analyzed by Alpha Analytical, Inc. of Westborough, Massachusetts.

2. Analytical data are compared to the Massachusetts Contingency Plan (MCP) Method 1 standards for GW-2 and GW-3 groundwater as well as MCP Reportable Concentrations for GW-2 groundwater. Bolded values indicate detections greater than laboratory reporting limits. Shaded and bolded values indicate exceedances of the MCP Method 1 standards.

3. Abbreviations:

MCP = Massachusetts Contingency Plan

VOC = Volatile Organic Compound

TPH = Total Petroleum Hydrocarbon

µg/L = micrograms per liter

"<" = the analyte was not detected above the laboratory reporting limit shown

**Table 4**  
**Summary of Concrete and Gravel Analytical Data**  
776 Summer Street  
South Boston, MA

SAMPLE NAME	MCP RCS-1	Units	SP-CONCRETE-A	SP-CONCRETE-B	SP-GRAVEL-A	SP-GRAVEL-B	SP-GRAVEL-C	SP-GRAVEL-D
			12/30/2022	12/30/2022	12/30/2022	12/30/2022	12/30/2022	12/30/2022
			L2273023-05	L2273023-06	L2273023-01	L2273023-02	L2273023-03	L2273023-04
DISPOSAL CLASSIFICATION			B-1	B-1	B-1	B-3	B-3	B-4T
<b>General Chemistry</b>								
pH	NS	SU	11.5	11.1	9.7	10	9.5	7.9
Specific Conductance	NS	umhos/cm	500	110	68	87	76	22
Ignitability	NS	F	NI	NI	NI	NI	NI	NI
Cyanide - Reactive	NS	mg/kg	<10	<10	<10	<10	<10	<10
Sulfide - Reactive	NS	mg/kg	<10	<10	<10	<10	<10	<10
<b>Metals</b>								
Antimony	20	mg/kg	<1.95	<1.96	3.26	2.07	2.36	3.18
Arsenic	20	mg/kg	5.95	6.82	16.6	7.02	7.15	10.9
Barium	1,000	mg/kg	59.6	67.8	80.7	38.5	51.5	102
Beryllium	90	mg/kg	0.391	0.332	0.442	0.320	0.510	0.434
Cadmium	70	mg/kg	<0.39	<0.392	0.557	<0.409	1.20	1.22
Chromium	100	mg/kg	13.3	12.5	25.9	15.8	18.9	41.5
Lead	200	mg/kg	62.6	142	172	105	109	378
Mercury	20	mg/kg	<0.068	<0.079	0.114	0.216	<0.075	0.112
Nickel	600	mg/kg	24.8	18.4	179	89.1	211	462
Selenium	400	mg/kg	<1.95	<1.96	<2.08	<2.04	<2.04	<2.12
Silver	100	mg/kg	<0.39	<0.392	0.540	<0.409	<0.409	<0.425
Thallium	8	mg/kg	<1.95	<1.96	<2.08	<2.04	<2.04	<2.12
Vanadium	400	mg/kg	53.4	44.7	493	280	583	1,130
Zinc	1,000	mg/kg	159	171	551	386	702	470
<b>Toxicity Characteristic Leaching Procedure</b>								
Lead	NS	mg/L	-	<0.5	<0.5	<0.5	<0.5	10.5
<b>Polychlorinated Biphenyls</b>								
Aroclor 1260	1	mg/kg	0.0532	0.0747	0.118	0.141	0.128	8.24
Total PCBs	1	mg/kg	0.0532	0.0747	0.118	0.141	0.128	8.24
<b>Volatile Organic Compounds</b>								
Acetone	6	mg/kg	0.042	0.055	<0.033	<0.021	<0.021	<0.022
Naphthalene	4	mg/kg	0.014	<0.0039	<0.0052	0.0087	0.017	<0.0035
Total VOCs	NS	mg/kg	0.056	0.055	ND	0.0087	0.017	ND
<b>Semivolatile Organic Compounds</b>								
Acenaphthene	4	mg/kg	0.37	0.22	<0.42	2.4	3.4	3.1
Anthracene	1,000	mg/kg	0.74	0.40	0.87	4.5	8.1	4.2
Benzo(a)anthracene	7	mg/kg	1.6	0.95	3.7	20	36	13
Benzo(a)pyrene	2	mg/kg	1.4	0.92	2.9	19	36	11
Benzo(b)fluoranthene	7	mg/kg	1.7	1.2	3.9	24	44	15
Benzo(g,h,i)perylene	1,000	mg/kg	0.74	0.50	1.5	6.5	14	7.4
Benzo(k)fluoranthene	70	mg/kg	0.60	0.37	1.3	3.3	7.3	4.3
Biphenyl	0.05	mg/kg	<0.37	<0.37	<0.1	0.17	0.14	0.26
Chrysene	70	mg/kg	1.4	1.0	3.6	20	36	12
Dibenz(a,h)anthracene	0.7	mg/kg	0.21	0.14	0.43	1.7	4.1	1.7
Dibenzofuran	100	mg/kg	0.38	0.23	<0.52	1.4	1.6	1.7
Fluoranthene	1,000	mg/kg	4.0	2.0	6.1	40	62	35
Fluorene	1,000	mg/kg	0.52	0.26	<0.52	2.0	3.0	2.3
Indeno(1,2,3-cd)pyrene	7	mg/kg	0.89	0.58	1.8	10	18	8.5
Methylnaphthalene (2-)	0.7	mg/kg	0.32	<0.2	0.24	0.71	0.56	1.2
Naphthalene	4	mg/kg	1.0	0.54	<0.52	0.96	0.54	1.8
Phenanthrene	10	mg/kg	2.9	1.7	3.5	22	29	24
Pyrene	1,000	mg/kg	3.2	1.6	5.3	33	51	28
Total SVOCs	NS	mg/kg	21.97	12.61	35.14	211.64	354.74	174.46
<b>Petroleum Hydrocarbon Quantitation</b>								
TPH (C10-C36)	1,000	mg/kg	215	434	917	1,580	2,970	1,910

Notes:

1. Samples were collected on the dates indicated by Sanborn, Head & Associates and analyzed by Alpha Analytical, Inc. of Westborough, Massachusetts.
2. Only PCB, SVOC, and VOC analytes detected above laboratory reporting limits are shown. Refer to the laboratory report for the full list of analytes.
3. Analytical data are compared to MCP (Massachusetts Contingency Plan) Reportable Concentrations for S-1 Soil (RCS-1). Bolded values indicate detections above laboratory reporting limits. Shaded values indicate exceedances of RCS-1 or RCRA toxicity characteristic concentration.
4. Abbreviations and symbols:  
NS = No standard  
PCBs = Polychlorinated biphenyls  
TPH = Total petroleum hydrocarbons  
SVOCs = Semivolatile organic compounds  
VOCs = Volatile organic compounds  
ND = Not detected  
umhos/cm = microhms per centimeter  
SU = Standard Unit  
mg/kg = milligrams per kilogram  
< = Analyte not detected above reporting limit shown

## **Appendix A**

### **Copy of BWSC-106 Release Abatement Measure Transmittal Form**



Massachusetts Department of Environmental Protection

# eDEP Transaction Copy

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Here is the file you requested for your records.

To retain a copy of this file you must save and/or print.

Username: **HGS33**

Transaction ID: **1512430**

Document: **BWSC106 Release Abatement Measure Transmittal Form**

Size of File: **172.95K**

Status of Transaction: **In Process**

Date and Time Created: **2/10/2023:11:54:38 AM**

**Note:** This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to "Download a Copy" from the Current Submittals page.



RELEASE ABATEMENT MEASURE (RAM)  
TRANSMITTAL FORM

Release Tracking Number

3 - 37047

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

A. SITE LOCATION:

- 1. Site Name/Location Aid: FORMER SOUTH BOSTON POWER PLANT
- 2. Street Address: 776 SUMMER STREET
- 3. City/Town: SOUTH BOSTON 4. Zip Code: 021270000

- 5. Check here if the disposal site that is the source of the release is Tier Classified. Check the current Tier Classification Category.
  - a. Tier I
  - b. Tier ID
  - c. Tier II

B. THIS FORM IS BEING USED TO: (check all that apply)

- 1. List Submittal Date of Initial RAM Plan (if previously submitted): 10/21/2021  
(mm/dd/yyyy)

2. Submit an **Initial Release Abatement Measure (RAM) Plan.**

a. Check here if the RAM is being conducted as part of the construction of a permanent structure. If checked, you must specify what type of permanent structure is to be erected in or in the immediate vicinity of the area where the RAM is to be conducted.

- b. Specify type of permanent structure: (check all that apply)
  - i. School
  - ii. Residential
  - iii. Commercial
  - iv. Industrial
  - v. Other

Specify: \_\_\_\_\_

3. Submit a **Modified RAM Plan** of a previously submitted RAM Plan.

4. Submit a **RAM Status Report.**

5. Submit a **Remedial Monitoring Report.** (This report can only be submitted through eDEP, concurrent with a RAM Status Report.)

- a. Type of Report: (check one)
  - i. Initial Report
  - ii. Interim Report
  - iii. Final Report

b. Frequency of Submittal:

- i. A Remedial Monitoring Report(s) submitted every six months, concurrent with a RAM Status Report.
- ii. A Remedial Monitoring Report(s) submitted annually, concurrent with a RAM Status Report.

c. Number of Remedial Systems and/or Monitoring Programs: \_\_\_\_\_

A separate BWSC106A, RAM Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

6. Submit a **RAM Completion Statement.**

7. Submit a **Revised RAM Completion Statement.**

8. Provide Additional RTNs:

a. Check here if this RAM Submittal covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here. This section is intended to allow a RAM to cover more than one unclassified RTN and not show permanent linkage to a Primary Tier Classified RTN.

b. Provide the additional Release Tracking Number(s) covered by this RAM Submittal.  -   -

9. Include in the **RAM Plan** or **Modified RAM Plan** a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).

**(All sections of this transmittal form must be filled out unless otherwise noted above)**



**RELEASE ABATEMENT MEASURE (RAM)  
TRANSMITTAL FORM**

Release Tracking Number

3 - 37047

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

**C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT RAM:**

1. Media Impacted and Receptors Affected: (check all that apply)
- |   |   |   |
|---|---|---|
| <input type="checkbox"/> a. Paved Surface       | <input type="checkbox"/> b. Basement          | <input type="checkbox"/> c. School                    |
| <input type="checkbox"/> d. Public Water Supply | <input type="checkbox"/> e. Surface Water     | <input type="checkbox"/> f. Zone 2                    |
| <input type="checkbox"/> g. Private Well        | <input type="checkbox"/> h. Residence         | <input checked="" type="checkbox"/> i. Soil           |
| <input type="checkbox"/> j. Ground Water        | <input type="checkbox"/> k. Sediments         | <input type="checkbox"/> l. Wetland                   |
| <input type="checkbox"/> m. Storm Drain         | <input type="checkbox"/> n. Indoor Air        | <input type="checkbox"/> o. Air                       |
| <input type="checkbox"/> p. Soil Gas            | <input type="checkbox"/> q. Sub-Slab Soil Gas | <input type="checkbox"/> r. Critical Exposure Pathway |
| <input type="checkbox"/> s. NAPL                | <input type="checkbox"/> t. Unknown           |   |
| <input type="checkbox"/> u. Others              | Specify: _____                                |   |

2. Sources of the Release or TOR: (check all that apply)
- |  |   |                                   |
|--|---|-----------------------------------|
| <input type="checkbox"/> a. Transformer        | <input type="checkbox"/> b. Fuel Tank         | <input type="checkbox"/> c. Pipe  |
| <input type="checkbox"/> d. OHM Delivery       | <input type="checkbox"/> e. AST               | <input type="checkbox"/> f. Drums |
| <input type="checkbox"/> g. Tanker Truck       | <input type="checkbox"/> h. Hose              | <input type="checkbox"/> i. Line  |
| <input type="checkbox"/> j. UST                | Describe: _____                               |                                   |
| <input type="checkbox"/> k. Vehicle            | <input type="checkbox"/> l. Boat/Vessel       |                                   |
| <input checked="" type="checkbox"/> m. Unknown | <input checked="" type="checkbox"/> n. Other: | URBAN FILL                        |

3. Type of Release or TOR: (check all that apply)
- |  |  |   |                                      |
|--|--|---|--------------------------------------|
| <input type="checkbox"/> a. Dumping            | <input type="checkbox"/> b. Fire             | <input type="checkbox"/> c. AST Removal | <input type="checkbox"/> d. Overfill |
| <input type="checkbox"/> e. Rupture            | <input type="checkbox"/> f. Vehicle Accident | <input type="checkbox"/> g. Leak        | <input type="checkbox"/> h. Spill    |
| <input type="checkbox"/> i. Test Failure       | <input type="checkbox"/> j. TOR Only         |   |                                      |
| <input type="checkbox"/> k. UST Removal        | Describe: _____                              |   |                                      |
| <input checked="" type="checkbox"/> l. Unknown | <input type="checkbox"/> m. Other:           | _____                                   |                                      |

4. Identify Oils and Hazardous Materials Released: (check all that apply)
- |   |   |
|---|---|
| <input checked="" type="checkbox"/> a. Oils         | <input checked="" type="checkbox"/> b. Chlorinated Solvents |
| <input checked="" type="checkbox"/> c. Heavy Metals | <input checked="" type="checkbox"/> d. Others               |
- Specify: PCBS

**D. DESCRIPTION OF RESPONSE ACTIONS:** (check all that apply, for volumes list cumulative amounts)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> 1. Assessment and/or Monitoring Only      | <input type="checkbox"/> 2. Temporary Covers or Caps                        |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials  | <input type="checkbox"/> 4. Temporary Water Supplies                        |
| <input type="checkbox"/> 5. Structure Venting System/HVAC Modification System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 7. Product or NAPL Recovery                          | <input type="checkbox"/> 8. Fencing and Sign Posting                        |
| <input type="checkbox"/> 9. Groundwater Treatment Systems                     | <input type="checkbox"/> 10. Soil Vapor Extraction                          |
| <input type="checkbox"/> 11. Remedial Additives                               | <input type="checkbox"/> 12. Air Sparging                                   |
| <input type="checkbox"/> 13. Active Exposure Pathway Mitigation System        | <input type="checkbox"/> 14. Passive Exposure Pathway Mitigation System     |
| <input type="checkbox"/> 15. Monitored Natural Attenuation                    | <input type="checkbox"/> 16. In-Situ Chemical Oxidation                     |





**RELEASE ABATEMENT MEASURE (RAM)  
TRANSMITTAL FORM**

Release Tracking Number

3 - 37047

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

**E. LSP SIGNATURE AND STAMP :**

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that a **Release Abatement Measure Plan** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Status Report** and/or **Remedial Monitoring Report** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply (ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal:

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 6161

2. First Name: PATRICIAM 3. Last Name: PINTO

4. Telephone: 9783920900 5. Ext.: \_\_\_\_\_ 6. Email: ppinto@sanbornhead.com

7. Signature: \_\_\_\_\_

8. Date: \_\_\_\_\_ 9. LSP Stamp: \_\_\_\_\_  
(mm/dd/yyyy)







**RELEASE ABATEMENT MEASURE (RAM)  
TRANSMITTAL FORM**

Release Tracking Number

3 - 37047

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

**F. PERSON UNDERTAKING RAM:**

1. Check all that apply:  a. change in contact name  b. change of address  c. change in the person undertaking response actions

2. Name of Organization: HRP 776 SUMMER STREET PROPCO LLC

3. Contact First Name: ANNE 4. Last Name: GARR

5. Street: 111 SOUTH WACKER DR SUITE 3000 6. Title: ASSISTANT SECRETARY

7. City/Town: CHICAGO 8. State: IL 9. ZIP Code: 606064309

10. Telephone: 3122834469 11. Ext.: \_\_\_\_\_ 12. Email: agarr@hilcoglobal.com

**G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING RAM:**

Check here to change relationship

1. RP or PRP  a. Owner  b. Operator  c. Generator  d. Transporter  
 e. Other RP or PRP Specify: ELIGIBLE PERSON

2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

4. Any Other Person Undertaking RAM Specify Relationship: \_\_\_\_\_

**H. REQUIRED ATTACHMENT AND SUBMITTALS:**

1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the RAM Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC108).

2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.

4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to [bwsc.edep@state.ma.us](mailto:bwsc.edep@state.ma.us).

5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.

6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



**RELEASE ABATEMENT MEASURE (RAM)  
TRANSMITTAL FORM**

Release Tracking Number

3 - 37047

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

**I. CERTIFICATION OF PERSON UNDERTAKING RAM:**

1. I, \_\_\_\_\_, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: \_\_\_\_\_ 3. Title: \_\_\_\_\_  
(Signature)

4. For: \_\_\_\_\_ 5. Date: \_\_\_\_\_  
(Name of person or entity recorded in Section F) (mm/dd/yyyy)

6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: \_\_\_\_\_  
8. City/Town: \_\_\_\_\_ 9. State: \_\_\_\_\_ 10. ZIP Code: \_\_\_\_\_  
11. Telephone: \_\_\_\_\_ 12. Ext.: \_\_\_\_\_ 13. Email: \_\_\_\_\_

**YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE**

Date Stamp (DEP USE ONLY:)



## **Appendix B**

### **Subsurface Boring Logs**



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-301

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/21/22

Date Finished: 09/26/22

Logged By: A. Hochreiter/A. Coen Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/21/22	---	Groundwater Level Not Recorded				

BORING LOG \\WESSERV2\SHDATA\4800\SI\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log Description		
0							CONCRETE	(0 to 0.5'): Concrete Slab.	Topping slab and terracotta cored down to 2.5 feet by Pro Cut prior to drilling test boring. Slab and terracotta thicknesses were measured by Suffolk Construction.
							TERRACOTTA	(0.5 to 2.5'): Terracotta.	
2		S-1	2.5 - 4.5	2	24/4	PID: ND		S-1 (2.5 to 4.5'): Loose, brown, fine to coarse SAND, some Gravel, trace Silt. Moist. FILL.	
4		S-2	4.5 - 6.5	3	24/8	PID: ND		S-2 (4.5 to 6.5'): Very loose, brown, fine to coarse SAND, some Gravel, trace Silt, trace Clay, very few Brick specks. Moist. FILL. 2" Seam of organic soil observed at bottom of sample.	
6		S-3	6.5 - 8.5	4	24/10	PID: ND	FILL	S-3 (6.5 to 8.5'): Loose, brown, fine to coarse SAND, some Gravel, trace Silt. Moist. FILL.	
8		S-4	8.5 - 10.5	15	24/10	PID: NA		S-4 (8.5 to 10.5'): Loose, brown, fine to coarse SAND and Gravel, little Silt. Wet. FILL.	
10		S-5	10.5 - 12.5	7	24/9	PID: NA		S-5 (10.5 to 12.5'): Loose, gray/brown, fine to coarse SAND and Gravel, trace Silt. Wet. FILL.	
12		S-6	12.5 - 14.5	18	24/0	PID: NA		S-6 (12.5 to 14.5'): Medium dense, No Recovery.	
14		S-7	14.5 - 16.5	6	24/12	PID: NA		S-7 (14.5 to 16.5'): Medium dense, gray/brown, fine to coarse SAND, little Silt, trace Gravel. Wet.	
16				6			SAND & GRAVEL		
18				6					
20				6					
22				6					
24		S-8	23 - 25	24	24/6	PID: NA		S-8 (23 to 25'): Medium dense, gray, fine to coarse GRAVEL, little Sand. Wet.	
26				5					
28				7					



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-301

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/21/22

Date Finished: 09/26/22

Logged By: A. Hochreiter/A. Coen Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/21/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSERV2\SHDATA\4800\SI\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log Description		
28		S-9	28 - 30	8 4 2 2	24/4	PID: NA  PID: NA	SAND & GRAVEL 28.7'	S-9A (28 to 28.7'): Loose, gray, fine to coarse GRAVEL and Sand. Wet. S-9B (28.7 to 30'): Loose, brown, SILT and Sand. Wet.	
30									
32									
34		S-10	33 - 35	8 9 11 20	24/10	PID: ND		S-10 (33 to 35'): Medium dense, brown/red, fine to coarse SAND, trace Gravel, trace Silt. Wet.	
36									
38		S-11	38 - 40	15 13 25 37	24/8	PID: NA		S-11 (38 to 40'): Dense, brown/red/gray, fine to coarse SAND, some Gravel, little Silt. Wet.	
40									
42							SAND		
44		S-12	43 - 45	16 11 12 13	24/7	PID: NA		S-12 (43 to 45'): Medium dense, gray/brown, fine to coarse SAND, little Gravel, trace Silt. Wet.	
46									
48		S-13	48 - 50	17 20 17 14	24/16	PID: NA		S-13 (48 to 50'): Dense, gray/brown, fine to coarse SAND, little Gravel, trace Silt. Wet.	
50									
52									
54		S-14	53 - 55	19 26 22 18	24/16	PID: NA		S-14 (53 to 55'): Dense, brown/red, fine to coarse SAND, some Gravel, trace Silt. Wet.	
56									



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-301

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/21/22

Date Finished: 09/26/22

Logged By: A. Hochreiter/A. Coen Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/21/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log Description		
56							SAND		
58		S-15	58 - 60	53 50 34 72	24/16	PID: NA	-----58'-----	S-15 (58 to 60'): Very dense, gray/brown, fine to coarse SAND and Gravel, little Silt. Wet.	
60									
62									
64		S-16	63 - 65	27 41 30 28	24/6	PID: NA		S-16 (63 to 65'): Very dense, gray/brown, fine to coarse GRAVEL and Sand, little Silt. Wet. TILL.	
66									
68									
70							GLACIAL TILL		
72									
74		S-17	73 - 75	28 58 39 62	24/18	PID: NA		S-17 (73 to 75'): Very dense, gray, fine to coarse GRAVEL, some Sand, trace Silt. Wet. TILL.	
76									Drill action indicated possible boulders from approximately 75 to 80 feet.
78									
80									
82									
84		S-18	83 - 85	44 56	24/16	PID: NA		S-18 (83 to 85'): Very dense, gray, fine to coarse SAND, some Silt, little Clay, little	



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-301

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/21/22

Date Finished: 09/26/22

Logged By: A. Hochreiter/A. Coen Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/21/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSER\2\SHDATA\4800\SI\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT, 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Field Testing Data	Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)		Log	Description		
84				54 60					Gravel. Wet. TILL.	
86								GLACIAL TILL		
88		S-19	88 - 88.7	76 100/2"	8/7	PID: NA	-----88'-----		S-19 (88 to 88.7'): Very soft to soft, very severely weathered, blue/gray, very fine-grained WEATHERED ARGILLITE.	S-19: Friable rock intermixed with clayey silt.
90										Telescoped and began advancing HW (4") casing at approximately 90 feet.
92										
94										
96		S-20	95 - 95.3	100/4"	4/3	PID: NA			S-20 (95 to 95.3'): Very soft to soft, very severely weathered, blue/gray, very fine-grained WEATHERED ARGILLITE.	S-20: Friable rock intermixed with clayey silt.
98										
100								WEATHERED BEDROCK		
102										
104										
106										
108		S-21	108 - 108.1	100/1"	1/1	PID: NA			S-21 (108 to 108.1'): Very soft to soft, very severely weathered, blue/gray, very fine-grained WEATHERED ARGILLITE.	Telescoped and began advancing NW (3") casing at approximately 108 feet.  S-21: Friable rock intermixed with clayey silt.
110										
112										



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-301

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/21/22

Date Finished: 09/26/22

Logged By: A. Hochreiter/A. Coen Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/21/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSERV2\SHDATA\4800\SI\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT, 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Field Testing Data	Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)		Log	Description		
112										
114										
116										
118										
120										
122		S-22	123 - 123.1	100/1"	1/1	PID: NA		S-22 (123 to 123.1'): Soft, very severely weathered, blue/gray, very fine-grained WEATHERED ARGILLITE.	S-22: Friable rock intermixed with clayey silt.	
124										
126							WEATHERED BEDROCK			
128										
130										
132										
134										
136										
138		S-23	138 - 138.4	100/5"	5/5	PID: NA		S-23 (138 to 138.4'): Soft, very severely weathered, blue/gray, very fine-grained WEATHERED ARGILLITE.	S-23: Friable rock intermixed with clayey silt.	
140										





Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-301

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/21/22

Date Finished: 09/26/22

Logged By: A. Hochreiter/A. Coen Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/21/22	---	Groundwater Level Not Recorded				

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Field Testing Data	Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)		Log	Description		
140										
142							WEATHERED BEDROCK			
144	8.5 8 7.5 8 8.5	C-1	143 - 148		60/54		-----143'----- BEDROCK	C-1 (143 to 148'): Soft to medium hard, fresh to very slightly weathered, blue/gray, very fine grained, ARGILLITE, joints spaced close to very close and dipping moderately to steep, sound to moderately fractured. REC=90%. RQD=42%.	Advanced roller bit down to approximately 143 feet. Drill action indicated possible transition to more competent bedrock at approximately 143 feet.	
146										
148							-----148'-----	Boring terminated at 148 feet.		
150								NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using a Ion Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.  2. Borehole grouted to ground surface upon completion.		
152										
154										
156										
158										
160										
162										
164										
166										
168										



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-302

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/16/22

Date Finished: 09/21/22

Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/19/22	07:50	8.8'	Ground Surface	10'	30'	3 Days

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT, 1/26/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log Description		
0						CONCRETE	(0 to 0.5'): Concrete Slab.	Topping slab and terracotta cored down to 1.8 feet by Pro Cut prior to drilling test boring. Slab and terracotta thicknesses were measured by Suffolk Construction.
						TERRACOTTA	(0.5 to 1.8'): Terracotta.	
2	S-1	2 - 2.3	100/4"	4/3		FILL	S-1 (2 to 2.3'): Very dense, gray/brown, fine to coarse SAND, little Silt, little Gravel, trace Clay. Moist. FILL.	
						CONCRETE	(3 to 4'): Concrete Slab.	
4	S-2	4 - 6	14 16 14 8	24/4			S-2 (4 to 6'): Hard, brown, SILT & CLAY, some Sand, trace Gravel. Moist. FILL.	
6	S-3	6 - 8	28 24 26 29	24/10		FILL	S-3 (6 to 8'): Hard, brown, CLAY & SILT, little Sand. Moist. FILL.	
8	S-4	8 - 10	11 14 17 21	24/24			S-4 (8 to 10'): Hard, brown, CLAY & SILT, trace Sand. Moist to wet. FILL.	
10								
12								
14	S-5	13 - 15	7 10 15 14	24/24		SILTY CLAY	S-5 (13 to 15'): Very stiff, gray, Silty CLAY. Wet.	
16								
18	S-6	18 - 20	14 21 31 28	24/24			S-6 (18 to 20'): Hard, brown, Clayey SILT, little Sand. Wet.	
20								
22						CLAYEY SILT		
24	S-7	23 - 25	6 8 16 25	24/24			S-7 (23 to 25'): Very stiff, brown, Clayey SILT, little Sand. Wet.	



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-302

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/16/22

Date Finished: 09/21/22

Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/19/22	07:50	8.8'	Ground Surface	10'	30'	3 Days

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information				Field Testing Data	Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)		Log	Description		
26									
28	S-8	28 - 30	19 18 25 26	24/24				S-8 (28 to 30'): Hard, brown/gray, Silty CLAY, little Sand. Wet.	
30									
32									
34	S-9	33 - 35	9 13 20 21	24/24		CLAYEY SILT		S-9 (33 to 35'): Hard, brown/gray, SILT & CLAY, little Sand. Wet.	
36									
38	S-10	38 - 40	9 12 14 17	24/24				S-10 (38 to 40'): Very stiff, brown/gray, Silty CLAY, trace Sand. Wet.	
40									
42							-----41'-----		
44	S-11	43 - 45	7 12 22 27	24/24		SILT & SAND		S-11 (43 to 45'): Hard, brown/gray, SILT and Sand. Wet.	
46									
48	S-12	48 - 50	17 23 24 27	24/24				S-12A (48 to 49'): Hard, brown, SILT and Sand. Wet.	
50							-----49'-----	S-12B (49 to 50'): Hard, gray, Silty CLAY. Wet.	
						SILTY CLAY			



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-302

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/16/22

Date Finished: 09/21/22

Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/19/22	07:50	8.8'	Ground Surface	10'	30'	3 Days

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description		
50									
52							SILTY CLAY		
54	S-13	53 - 55	3 5 21 37	24/24				S-13A (53 to 54.6'): Very stiff, gray, Silty CLAY, trace Sand. Wet.	
56								S-13B (54.6 to 55'): Medium dense, gray, fine to medium SAND, little Silt, trace Clay. Wet. TILL.	
58	S-14	58 - 60	19 17 15 21	24/12				S-14 (58 to 60'): Dense, gray, fine to coarse SAND, some Silt, little Gravel, trace Clay. Wet. TILL.	
62									
64	S-15	63 - 65	35 43 44 43	24/22			GLACIAL TILL	S-15 (63 to 65'): Dense, gray/brown, fine to coarse SAND, some Silt, trace Gravel. Wet. TILL.	
66									
68	S-16	68 - 70	16 27 30 36	24/16				S-16 (68 to 70'): Dense, gray/brown, fine to coarse SAND and Silt, little Gravel, trace Clay. Wet. TILL.	
70									
72									
74	S-17	73 - 75	28 24 44 43	24/22				S-17 (73 to 75'): Dense, gray/brown, fine to coarse SAND, little Silt, little Gravel, trace Clay. Wet. TILL.	



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

**Log of Boring SH-302**

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/16/22

Date Finished: 09/21/22

Logged By: A. Hochreiter

Checked By: A. Coen

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/19/22	07:50	8.8'	Ground Surface	10'	30'	3 Days

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description		
76									Drill action indicated possible cobbles at approximately 76 ft.
78	S-18	78 - 78.3	100/3"	3/2			GLACIAL TILL	S-18 (78 to 78.3'): Very dense, gray, fine to coarse SAND and Gravel, trace Silt, trace Clay. Wet. TILL.	Drill action indicated possible boulder at 78.3 ft.
80									
82									
84	S-19	83 - 84.3	85 104 100/3"	16/10				S-19 (83 to 84.5'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	S-19: Friable rock intermixed with clayey silt.
86									
88	S-20	88 - 90	53 59 68 70	24/10				S-20 (88 to 90'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	S-20: Friable rock intermixed with clayey silt.
90									
92							WEATHERED BEDROCK		
94	S-21	93 - 93.1	100/1"	1/1				S-21 (93 to 93.1'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	S-21: Friable rock intermixed with clayey silt.
96									
98	S-22	98 - 98.2	100/2"	2/2				S-22 (98 to 98.2'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	S-22: Friable rock intermixed with clayey silt.
100									



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-302

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/16/22

Date Finished: 09/21/22

Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/19/22	07:50	8.8'	Ground Surface	10'	30'	3 Days

BORING LOG \\WESSERV2\SHDATA\4800\SI4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log Description		
100								
102								
103 - 103.5	S-23	103 - 103.5	125	6/4			S-23 (103 to 103.5'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	S-23: Friable rock intermixed with clayey silt.
106						WEATHERED BEDROCK		
108 - 108.8	S-24	108 - 108.8	84 100/3"	9/8			S-24 (108 to 108.8'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	S-24: Friable rock intermixed with clayey silt.
113 - 113.1	S-25	113 - 113.1	100/1"	1/1			S-25 (113 to 113.1'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.  Boring terminated at 113.1 feet.	S-25: Friable rock intermixed with clayey silt.
116							NOTES: 1. Borehole grouted to ground surface upon completion.	
118								
120								
122								
124								



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-304

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/28/22

Date Finished: 09/29/22

Logged By: R. Henderson

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/28/22	---	Groundwater Level Not Recorded				

BORING LOG \\WESSERV2\SHDATA\4800\SI\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Field Testing Data	Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)		Log	Description		
0							CONCRETE	(0 to 0.5'): Concrete Slab.	Topping slab and terracotta cored down to 2.5 feet by Pro Cut prior to drilling test boring. Slab and terracotta thicknesses were measured by Suffolk Construction.	
0.5						TERRACOTTA	(0.5 to 2.5'): Terracotta.			
2.5		S-1	2.5 - 4.5	1 2 2 2	24/8			S-1 (2.5 to 4.5'): Very loose, brown, fine to coarse SAND and Silt, trace Clay. Moist. FILL.		
4.5		S-2	4.5 - 6.5	1 2 2 4	24/6		FILL	S-2 (4.5 to 6.5'): Very loose, brown/gray, fine to coarse SAND, little Silt, little Clay, little Gravel. Moist. FILL.		
6.5		S-3	6.5 - 8.5	3 3 2 3	24/24			S-3 (6.5 to 8.5'): Medium stiff, brown, SILT & CLAY, some Sand. Moist to wet. FILL.		
8.5										
13		S-4	13 - 15	2 3 4 4	24/24		SILTY CLAY	S-4 (13 to 15'): Medium stiff, brown, Silty CLAY, trace Sand. Wet.		
20									Drill action and casing advancement rate indicated stratum change at approximately 20 feet.	
23		S-5	23 - 25	21 12 9 4	24/18		SAND	S-5 (23 to 25'): Medium dense, brown, fine to coarse SAND, little Gravel, trace Silt. Wet.		



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-304

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/28/22

Date Finished: 09/29/22

Logged By: R. Henderson

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/28/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information					Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description		
26										
28										
30										
32										
34		S-6	33 - 35	18 10 14 16	24/16			SAND	S-6 (33 to 35'): Medium dense, brown, fine to medium SAND, little Silt. Wet.	
36										
38										
40										PW (5") casing advanced to approximately 40 feet. Advanced boring uncased from approximately 40 to 50 feet.
42										
44		S-7	43 - 45	24 28 27 20	24/7			SAND & GRAVEL	S-7 (43 to 45'): Very dense, gray, fine to coarse GRAVEL, some Sand, trace Silt. Wet.	
46										
48										
50										





Project: 776 Summer Street - Block D  
 Location: Boston, MA  
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### Log of Boring SH-304

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Date Started: 09/28/22

Date Finished: 09/29/22

Logged By: R. Henderson

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/28/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Field Testing Data	Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)		Log	Description		
50									Telescoped and began advancing HW (4") casing at approximately 50 feet.	
52							SAND & GRAVEL			
54		S-8	53 - 55	15 14 19 15	24/12		-----53'-----	S-8 (53 to 55'): Hard, gray, Silty CLAY, little Sand. Wet.		
56										
58							SILTY CLAY			
60										
62										
64		S-9	63 - 65	10 19 19 16	24/22		-----63'-----	S-9 (63 to 65'): Dense, gray, fine to coarse SAND, some Silt, some Clay, little Gravel. Wet. TILL.		
66									HW (4") casing advanced to approximately 65 feet. Advanced boring uncased from approximately 65 to 103 feet.	
68										
70							GLACIAL TILL			
72										
74		S-10	73 - 75	26 34 54 63	24/10			S-10 (73 to 75'): Hard, gray, CLAY & SILT, some Gravel, little Sand. Wet. TILL.		



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

**Log of Boring SH-304**

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/28/22

Date Finished: 09/29/22

Logged By: R. Henderson

Checked By: A. Coen

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/28/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSERV2\SHDATA\4800\SI4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Field Testing Data	Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)		Log	Description		
76										
78							GLACIAL TILL			
80										
82										
83		S-11	83 - 83.3	100/3"	3/3		-----83'-----	S-11 (83 to 83.3'): Very dense, gray, fine to coarse SAND and Gravel, little Silt, very soft to soft, very severely weathered, gray, very fine-grained, WEATHERED ARGILLITE. Wet. WEATHERED BEDROCK.	S-11: Friable rock intermixed with clayey silt.	
84										
86										
88										
90										
92							WEATHERED BEDROCK			
93		S-12	93 - 93.2	100/2"	2/2			S-12 (93 to 93.2'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	S-12: Friable rock intermixed with clayey silt.	
94										
96										
98										
100										



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-304

Ground Elevation: 16 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/28/22

Date Finished: 09/29/22

Logged By: R. Henderson

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time	
09/28/22	---	Groundwater Level Not Recorded					

BORING LOG \\WESSERV2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Drill Rate (min/ft)	Sample Information				Stratum		Geologic Description	Remarks
		Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log Description		
100									
102							WEATHERED BEDROCK		
103		S-13	103 - 103.3	100/3"	3/3			S-13 (103 to 103.3'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	Telescoped and began advancing NW (3") casing at approximately 103 feet.
104									
105		C-1	105 - 110		60/56			C-1 (105 to 110'): Soft to medium hard, fresh to very slightly weathered, blue/gray, very fine grained, ARGILLITE, joints spaced close to moderately close, moderately dipping, extremely fractured to sound. REC=93%. RQD=58%.	S-13: Friable rock intermixed with clayey silt.
106	9.5 11 10 10 8.5								
108									
110	4.5 5 4.5 5.5 5.5	C-2	110 - 115		60/54			C-2 (110 to 115'): Soft to medium hard, fresh, blue/gray, very fine grained, ARGILLITE, joints spaced close to wide, moderately dipping, slightly fractured to sound. REC=90%. RQD=90%.	
112							BEDROCK		
114									
115									
116	4.5 3.5 4 4.5 7	C-3	115 - 119.5		54/54			C-3 (115 to 119.5'): Soft to medium hard, fresh to very slightly weathered, blue/gray, very fine grained, ARGILLITE, joints spaced very close to moderately close, horizontal to moderately dipping, extremely fractured to sound. REC=100%. RQD=82%.	
118									
119.5									
120									Boring terminated at 119.5 feet.
122									NOTES: 1. Borehole grouted to ground surface upon completion.  2. Automatic hammer used for samples S-1 through S-6. Safety hammer used for samples thereafter.
124									



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-305

Ground Elevation: 29 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/12/22

Date Finished: 09/16/22













Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/13/22	07:10	18.9'	Ground Surface	78'	81'	16 Hours

BORING LOG \\WESSERV2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description		
0	S-1	0 - 2	5 5 5 5	24/8	PID: NA	 ----0'---- ASPHALT ----0.7'----	S-1A (0 to 0.7'): ASPHALT.		
2	S-2	2 - 4	6 4 4 2	24/5	PID: NA		S-1B (0.7 to 2'): Loose, brown/black, fine to coarse SAND, little Gravel, little Silt. Moist. FILL.		
4	S-3	4 - 6	4 3 3 2	24/3	PID: NA		S-2 (2 to 4'): Loose, brown, fine to coarse SAND, trace Silt, trace Gravel. Moist. FILL.		
6	S-4	6 - 8	2 1 2 2	24/16	PID: NA		S-3 (4 to 6'): Loose, brown, fine to coarse SAND, little Gravel, trace Silt. Moist. FILL.		
8	S-5	8 - 10	4 3 2 2	24/8	PID: 3 ppmv		S-4 (6 to 8'): Very loose, brown, fine to coarse SAND, trace Silt, trace Clay. Moist. FILL.		
10	S-6	10 - 12	5 5 4 8	24/14	PID: 3 ppmv		S-5 (8 to 10'): Loose, brown/black, fine to coarse SAND, little Gravel, little Silt, trace Clay. Moist. FILL.		
12	S-7	12 - 14	12 5 4 5	24/8	PID: 33 ppmv	 FILL	S-6 (10 to 12'): Loose, black/gray, fine to coarse SAND, little Gravel, little Silt, trace Clay, very few Brick particles. Moist. FILL.		
14	S-8	14 - 16	6 4 3 3	24/12	PID: 40 ppmv		S-7 (12 to 14'): Loose, black/gray, fine to coarse SAND, little Gravel, little Silt, trace Clay, very few Brick fragments. Moist. FILL.		
16	S-9	16 - 18	4 3 2 2	24/0	PID: NA		S-8 (14 to 16'): Loose, brown/gray, fine to coarse SAND, some Gravel, little Silt, very few Brick particles. Moist. FILL.		
18	S-10	18 - 20	9 5 2 2	24/8	PID: NA		S-9 (16 to 18'): Loose, No recovery.		
20	S-11	20 - 22	7 3 3 4	24/10	PID: NA		S-10 (18 to 20'): Loose, brown/gray, fine to coarse SAND and Gravel, little Silt, trace Clay. Moist to wet. FILL.		
22	S-12	23 - 25	7 3 4 4	24/12	PID: NA		S-11 (20 to 22'): Loose, brown/gray, fine to coarse SAND, some Gravel, trace Silt. Wet. FILL.		
24							----24'---- SAND	S-12A (23 to 24'): Loose, brown/gray, fine to coarse SAND, some Gravel, trace Silt. Wet. FILL.	
					PID: NA		S-12B (24 to 25'): Loose, brown, fine to medium SAND, little Silt. Wet.		



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-305

Ground Elevation: 29 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/12/22

Date Finished: 09/16/22

Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/13/22	07:10	18.9'	Ground Surface	78'	81'	16 Hours

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description		
26									
28	S-13	28 - 30	11 12 14 14	24/10	PID: NA			S-13 (28 to 30'): Medium dense, brown, fine to medium SAND, little Silt. Wet.	
30									
32									
34	S-14	33 - 35	10 15 19 13	24/14	PID: NA			S-14 (33 to 35'): Dense, brown, fine to medium SAND, little Silt. Wet.	
36									
38	S-15	38 - 40	10 12 13 14	24/16	PID: NA		SAND	S-15 (38 to 40'): Medium dense, brown, fine to medium SAND, little Silt. Wet.	
40									
42									
44	S-16	43 - 45	11 14 17 15	24/18	PID: NA			S-16 (43 to 45'): Dense, brown, fine to medium SAND, some Silt. Wet.	
46									
48	S-17	48 - 50	6 8 8 9	24/20	PID: NA			S-17 (48 to 50'): Medium dense, brown, fine to medium SAND and Silt, trace Clay. Wet.	
50									



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-305

Ground Elevation: 29 ± feet  
 Datum: Boston City Base

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Logged By: A. Hochreiter

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#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/13/22	07:10	18.9'	Ground Surface	78'	81'	16 Hours

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description		
50							SAND		
51							SAND		
52							SILTY CLAY		Drill action indicated stratum change at approximately 51 feet.
53	S-18	53 - 55	22 28 27 24	24/18	PID: NA PID: NA		SAND & GRAVEL	S-18A (53 to 53.2'): Hard, brown, Silty CLAY, little Gravel, trace Sand. Wet.	
54							SAND & GRAVEL	S-18B (53.2 to 55'): Very dense, brown, fine to coarse SAND and Gravel, trace Silt, trace Clay. Wet.	
56							SAND & GRAVEL		Drill action indicated possible boulder at approximately 56 feet.
58	S-19	58 - 60	23 25 28 28	24/18	PID: NA		SAND & GRAVEL	S-19 (58 to 60'): Very dense, brown, fine to coarse SAND and Gravel, little Silt. Wet.	
60							SAND & GRAVEL		
62							SAND & GRAVEL		
63	S-20	63 - 65	24 32 30 30	24/14	PID: NA		SAND & GRAVEL	S-20 (63 to 65'): Very dense, brown, fine to coarse SAND and Gravel, trace Silt. Wet.	
64							SAND & GRAVEL		
66							SAND & GRAVEL		
68	S-21	68 - 70	38 32 30 29	24/18	PID: NA		SAND & GRAVEL	S-21 (68 to 70'): Very dense, brown, fine to coarse SAND and Gravel, trace Silt, trace Clay. Wet.	
70							SAND & GRAVEL		
72							SAND & GRAVEL		
73	S-22	73 - 75	30 44 41 36	24/22	PID: NA		SAND & GRAVEL	S-22 (73 to 75'): Very dense, brown, fine to coarse SAND and Gravel, little Silt. Wet.	
74							SAND & GRAVEL		



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-305

Ground Elevation: 29 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/12/22

Date Finished: 09/16/22

Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/13/22	07:10	18.9'	Ground Surface	78'	81'	16 Hours

BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description		
76							SAND & GRAVEL		
78	C-1	78.5 - 81.5		36/8			-----78.5'-----	C-1 (78.5 to 81.5): Cored through boulder.	PW casing refusal at approximately 78.5 feet. Begin coring at 78.5 feet.
80							BOULDERS		
82	S-23	83 - 85	43 27 35 40	24/14	PID: NA		-----81.5'-----	S-23 (83 to 85'): Very dense, gray/brown, fine to coarse GRAVEL, some Sand, little Silt. Wet. TILL.	
84									
86									
88	S-24	88 - 90	20 27 35 23	24/20	PID: NA PID: NA			S-24A (88 to 88.5'): Very dense, gray/brown, fine to coarse GRAVEL, some Sand, little Silt. Wet. TILL. S-24B (88.5 to 90'): Hard, gray, SILT & CLAY, little Gravel, trace Sand. Wet. TILL.	
90							GLACIAL TILL		
92									
94	S-25	93 - 95	47 35 38 26	24/20	PID: NA			S-25 (93 to 95'): Very dense, gray, fine to coarse SAND, some Gravel, some Silt, trace Clay. Wet. TILL.	
96									
98	S-26	98 - 100	23 22 24 17	24/18	PID: NA			S-26 (98 to 100'): Dense, gray, fine to coarse SAND, some Silt, little Gravel, trace Clay. Wet. TILL.	
100									



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-305

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 Datum: Boston City Base

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#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
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BORING LOG \\WESSERV2\SHDATA\4800\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description		
100									
102									Drill action indicated possible cobbles at approximately 102 feet.
103 - 105	S-27	103 - 105	31 83 39 29	24/10	PID: NA			S-27 (103 to 105'): Very dense, gray, fine to coarse SAND and Gravel, little Silt, trace Clay. Wet. TILL.	
106							GLACIAL TILL		
108	S-28	108 - 110	25 25 30 34	24/14	PID: NA			S-28 (108 to 110'): Hard, gray, Clayey SILT, some Sand, some Gravel. Wet. TILL.	
112							-----112'		Drill action indicated stratum change at approximately 112 feet.
113 - 113.3	S-29	113 - 113.3	100/3"	3/3	PID: NA			S-29 (113 to 113.3'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	
118	S-30	118 - 118.2	100/2"	2/2	PID: NA		WEATHERED BEDROCK	S-30 (118 to 118.2'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.	
120									
122									
124									





Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.10

### Log of Boring SH-305

Ground Elevation: 29 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: 140-lb Automatic Hammer, 24" Long by 2" O.D. Split-Spoon, NX Core Barrel

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 09/12/22

Date Finished: 09/16/22

Logged By: A. Hochreiter

Checked By: A. Coen

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
09/13/22	07:10	18.9'	Ground Surface	78'	81'	16 Hours

BORING LOG \\WESSERV2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description		
126							WEATHERED BEDROCK		
128	C-2	128 - 133		60/43			-----128'-----	C-2 (128 to 133'): Moderately hard, slightly weathered, blue, very fine-grained, ARGILLITE, moderately fractured. REC=72%. RQD=57%.	
130									
132	C-3	133 - 136.5		42/42				C-3 (133 to 136.5'): Moderately hard, very severely weathered, blue, very fine-grained, ARGILLITE, moderately fractured. REC=100%. RQD=19%.	
134							BEDROCK		
136									Core barrel jammed at approximately 136.5 feet. Advanced roller bit from approximately 136.5 to 138 feet. Resume coring at 138 feet.
138	C-4	138 - 141.5		42/33				C-4 (138 to 141.5'): Moderately hard, very severely weathered, blue, very fine-grained, ARGILLITE, moderately fractured. REC=79%. RQD=23%.	
140									
142							-----141.5'-----	Boring terminated at 141.5 feet.	Core barrel jammed at approximately 141.5 feet.
144								NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using a Ion Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings and finished with asphalt patch at the surface upon completion.	
146									
148									
150									

Sanborn, Head & Associates, Inc.

**Drilling Method: Track-mounted Soil Scout, Drive and Wash w/ HW (4") and NW (3") Casing**

**Sampling Method: Donut Hammer, 24" Long by 2" O.D. Split-Spoon**

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
10/05/22	07:45	13'	Ground Surface	33'	33'	17 Hours
10/06/22	07:30	14.5'	Ground Surface	58'	58'	17 Hours
10/19/22	---	11.7'	Top of PVC	Well Installed	Well Installed	8 Days
10/26/22	---	11.7'	Top of PVC	Well Installed	Well Installed	17 Days

**Drilling Company: New England Boring Contractors**

**Foreman: C. Knight**

**Date Started: 10/04/22**

**Date Finished: 10/11/22**

**Logged By: R. Henderson**

**Checked By: A. Coen**

BORING LOG \\WESSERV2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description			
0	S-1	0 - 2	7 13 10 10	24/7	PID: ND		----0'----	S-1 (0 to 2'): Medium dense, dark brown, fine to coarse SAND and Gravel, little Silt. Moist. FILL.		Flushmounted Road Box Set in Concrete (0 to 0.5')
2	S-2	2 - 4	6 3 7 9	24/7	PID: ND			S-2 (2 to 4'): Medium dense, brown, fine to coarse SAND, little Gravel, little Silt. Moist. FILL.		
4	S-3	4 - 6	27 16 13 14	24/8	PID: ND			S-3 (4 to 6'): Medium dense, brown, fine to coarse SAND, little Gravel, little Silt. Moist. FILL.		
6	S-4	6 - 8	14 14 13 11	24/8	PID: ND			S-4 (6 to 8'): Medium dense, brown, fine to coarse SAND, little Gravel, little Silt. Moist. FILL.		
8							FILL			
10	S-5	9 - 11	11 10 8 8	24/5	PID: ND			S-5 (9 to 11'): Medium dense, brown, fine to coarse SAND, some Gravel, little Silt. Moist. FILL.		2" Dia. Sch. 40 PVC Riser (0.2 to 33')
12	S-6	11 - 13	7 9 11 4	24/9	PID: ND			S-6A (11 to 12'): Medium dense, brown, fine to coarse SAND and Gravel, little Silt. Moist. FILL.		
12					PID: ND			S-6B (12 to 13'): Medium dense, dark brown, fine to coarse SAND, some Silt, little Gravel. Moist. FILL.		Formation Material (0.5 to 25')
14										
16	S-7	15 - 17	6 7 3 2	24/0	PID: ND		-----15'----	S-7 (15 to 17'): No recovery.		
18	S-8	17 - 19	5 12 12 12	24/8	PID: 1 ppmv			S-8 (17 to 19'): Medium dense, gray, fine to coarse SAND, little Gravel, little Silt. Wet.		
20	S-9	19 - 21	22 7 11 12	24/9	PID: NA		SILTY SAND	S-9 (19 to 21'): Medium dense, gray/black, fine to coarse SAND and Silt, little Gravel, trace Organics. Wet.		
22										
24	S-10	24 - 26	19 17 12 9	24/9	PID: ND		-----22.5'----	SAND & GRAVEL		S-10 (24 to 26'): Medium dense, brown/gray, fine to coarse GRAVEL, some Sand, trace Silt. Wet.
26										



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.20

### Log of Monitoring Well SH-307W

Ground Elevation: 18 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-mounted Soil Scout, Drive and Wash w/ HW (4") and NW (3") Casing

Sampling Method: Donut Hammer, 24" Long by 2" O.D. Split-Spoon

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
10/05/22	07:45	13'	Ground Surface	33'	33'	17 Hours
10/06/22	07:30	14.5'	Ground Surface	58'	58'	17 Hours
10/19/22	---	11.7'	Top of PVC	Well Installed	Well Installed	8 Days
10/26/22	---	11.7'	Top of PVC	Well Installed	Well Installed	17 Days

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 10/04/22

Date Finished: 10/11/22

Logged By: R. Henderson

Checked By: A. Coen

BORING LOG \\WESSER\2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
26							SAND & GRAVEL			Bentonite Seal (25 to 27')
28	S-11	28 - 30	8 4 5 7	24/11	PID: ND			S-11 (28 to 30'): Loose, brown/gray, fine SAND, little Silt. Wet.		2" Dia. Sch. 40 PVC Riser (0.2 to 33')
32							SAND			
34	S-12	33 - 35	8 6 5 7	24/10	PID: ND			S-12 (33 to 35'): Medium dense, gray, fine SAND, little Silt. Wet.		
36										Filter Sand (27 to 47.5')
38	S-13	38 - 40	33 65 30 35	24/5	PID: NA			S-13 (38 to 40'): Very dense, brown, fine to coarse SAND and Gravel, some Silt. Wet.		2" Dia. Sch. 40 PVC Well Screen (0.010" Slots) (33 to 43')
42							SAND & GRAVEL			
44	S-14	43 - 45	62 47 87 70	24/12	PID: NA			S-14 (43 to 45'): Very dense, brown/gray, fine to coarse GRAVEL and Sand, little Silt. Wet.		
46										
48	S-15	48 - 50	19 20 29 30	24/12	PID: NA			S-15 (48 to 50'): Dense, gray, fine to coarse SAND, trace Gravel, trace Silt. Wet.		
50							SAND			
52										



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.20

### Log of Monitoring Well SH-307W

Ground Elevation: 18 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-mounted Soil Scout, Drive and Wash w/ HW (4") and NW (3") Casing

Sampling Method: Donut Hammer, 24" Long by 2" O.D. Split-Spoon

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
10/05/22	07:45	13'	Ground Surface	33'	33'	17 Hours
10/06/22	07:30	14.5'	Ground Surface	58'	58'	17 Hours
10/19/22	---	11.7'	Top of PVC	Well Installed	Well Installed	8 Days
10/26/22	---	11.7'	Top of PVC	Well Installed	Well Installed	17 Days

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 10/04/22

Date Finished: 10/11/22

Logged By: R. Henderson

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800SI\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT, 10/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description		
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description					
52	S-16	53 - 55	47	24/0	PID: NA			S-16 (53 to 55'): No recovery.				
54			28								18	19
56	S-17	58 - 60	21	24/10	PID: NA		SAND & GRAVEL	S-17 (58 to 60'): Very dense, gray, fine to coarse SAND, some Gravel, little Silt. Wet.		Formation Material (47.5 to 66.5')		
58			32								45	59
60												
62												
64	S-18	63 - 65	55	24/6	PID: NA			S-18 (63 to 65'): Very dense, gray, fine to coarse GRAVEL and Sand, little Silt. Wet.				
64			61								40	34
66								Boring terminated at 66.5 feet due to refusal on probable boulder.				
68	<p>NOTES:</p> <p>1. Soil samples were screened for volatile organic compounds (VOCs) using a Ion Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.</p>											
70												
72												
74												
76												
78												



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.20

### Log of Monitoring Well SH-308W

Ground Elevation: 18 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
10/09/22	07:10	8.5'	Ground Surface	58'	58'	17 Hours
10/19/22	---	9.2'	Top of PVC	Well Installed	Well Installed	8 Days
10/28/22	---	10.5'	Top of PVC	Well Installed	Well Installed	17 Days

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 10/07/22

Date Finished: 10/11/22

Logged By: R. Henderson

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
0	S-1	0 - 2	10 14 28 16	24/17	PID: ND		----	S-1A (0 to 1'): Dense, black, fine to coarse SAND, little Gravel, common Debris, little Silt. Moist. FILL.		Flushmounted Road Box Set in Concrete (0 to 0.5')
2	S-2	2 - 4	20 23 20 13	24/11	PID: ND			S-1B (1 to 2'): Dense, gray, fine to coarse GRAVEL, some Sand, trace Silt. Moist. FILL. S-2 (2 to 4'): Dense, brown, fine to coarse SAND and Gravel, trace Silt. Moist. FILL.		
4	S-3	4 - 6	35 17 14 12	24/0	PID: NA			S-3 (4 to 6'): No recovery.		
6	S-4	6 - 8	12 7 9 9	24/11	PID: ND			S-4 (6 to 8'): Medium dense, brown, fine to coarse SAND, little Gravel, trace Silt. Moist. FILL.		
8	S-5	8 - 10	11 5 5 5	24/4	PID: ND		FILL	S-5 (8 to 10'): Medium dense, brown, fine to coarse SAND, some Gravel, little Silt. Wet. FILL.		
10	S-6	10 - 12	6 5 7 5	24/7	PID: ND			S-6 (10 to 12'): Medium dense, brown, fine to coarse SAND, little Gravel, trace Silt. Wet. FILL.		
12										
14	S-7	13 - 15	14 6 2 2	24/0	PID: NA			S-7 (13 to 15'): No recovery.		
16	S-8	15 - 17	2 2 5 6	24/3	PID: ND			S-8 (15 to 17'): Loose, brown/gray, fine to coarse SAND, little Silt, trace Gravel. Wet. FILL.		Formation Material (0.5 to 28.5')
18	S-9	18 - 20	42 48 38 20	24/0				S-9 (18 to 20'): No recovery.		2" Dia. Sch. 40 PVC Riser (0.2 to 33')
20	S-10	20 - 22	13 13 17 15	24/3	PID: ND			S-10 (20 to 22'): Dense, gray, fine to coarse SAND, some Silt, trace Gravel. Wet.		
22							SAND			
24	S-11	23 - 25	8 5 5 5	24/11	PID: ND			S-11 (23 to 25'): Medium dense, brown, fine to medium SAND, little Silt. Wet.		
26										



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.20

### Log of Monitoring Well SH-308W

Ground Elevation: 18 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
10/09/22	07:10	8.5'	Ground Surface	58'	58'	17 Hours
10/19/22	---	9.2'	Top of PVC	Well Installed	Well Installed	8 Days
10/28/22	---	10.5'	Top of PVC	Well Installed	Well Installed	17 Days

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 10/07/22

Date Finished: 10/11/22

Logged By: R. Henderson

Checked By: A. Coen

BORING LOG \\WESSER\2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
26										
28	S-12	28 - 30	4 5 7 8	24/14	PID: ND		SAND	S-12 (28 to 30'): Medium dense, brown, fine to medium SAND, trace Silt. Wet.		Bentonite Seal (28.5 to 30.5')
30										
32										
34	S-13	33 - 35	6 11 11 11	24/14	PID: ND  PID: ND		SILTY SAND	S-13A (33 to 34'): Medium dense, brown/gray, fine SAND and Silt. Wet. S-13B (34 to 35'): Medium dense, dark brown, fine to coarse SAND, little Gravel, little Silt. Wet.		
36										
38	S-14	38 - 40	15 13 15 14	24/10	PID: NA		SAND & GRAVEL	S-14 (38 to 40'): Medium dense, brown/gray, fine to coarse SAND, some Gravel, little Silt. Wet.		Filter Sand (30.5 to 43') 2" Dia. Sch. 40 PVC Well Screen (0.010" Slots) (33 to 43')
40										
42										
44	S-15	43 - 45	16 17 26 21	24/16	PID: NA  PID: NA		SAND	S-15A (43 to 44'): Dense, orange/brown, fine to coarse SAND, little Gravel, little Silt. Wet. S-15B (44 to 45'): Dense, dark brown, fine to coarse SAND, little Silt, trace Gravel. Wet.		
46										
48	S-16	48 - 50	7 11 21 13	24/13	PID: NA  PID: NA		SILTY SAND	S-16A (48 to 49'): Dense, brown/gray, fine to medium SAND and Silt, trace Gravel. Wet. S-16B (49 to 50'): Dense, brown/gray, fine to coarse SAND, some Gravel, some Silt. Wet.		Formation Material (43 to 79')
50										
52										



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.20

### Log of Monitoring Well SH-308W

Ground Elevation: 18 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
10/09/22	07:10	8.5'	Ground Surface	58'	58'	17 Hours
10/19/22	---	9.2'	Top of PVC	Well Installed	Well Installed	8 Days
10/28/22	---	10.5'	Top of PVC	Well Installed	Well Installed	17 Days

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 10/07/22

Date Finished: 10/11/22

Logged By: R. Henderson

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800S\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description		
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description					
52	S-17	53 - 55	19	24/15	PID: NA			S-17 (53 to 55'): Medium dense, dark gray, fine to coarse SAND, little Gravel, little Silt. Wet.				
54			12								11	25
56	S-18	58 - 60	22	24/24	PID: NA	SAND		S-18 (58 to 60'): Very dense, brown, fine to coarse SAND, little Silt, trace Gravel. Wet.		Formation Material (43 to 79')		
58			30								24	
60			30								24	
62			24								24	
64	S-19	63 - 65	18	24/10	PID: NA			S-19 (63 to 65'): Very dense, gray, fine to medium SAND, trace Silt. Wet.				
64			21								20	15
66	S-20	68 - 70	15	24/11	PID: NA	GLACIAL TILL		S-20 (68 to 70'): Dense, gray, fine to coarse SAND, some Gravel, little Silt, trace Clay. Wet. TILL.				
68			15								21	40
70			15								21	40
72			15								21	40
74			15								21	40
76	S-21	73 - 75	40	24/12	PID: NA			S-21 (73 to 75'): Very dense, gray, fine to coarse SAND, some Gravel, little Silt, little Clay. Wet. TILL.				
74			58								41	26
76			41								26	26
78												



Project: 776 Summer Street - Block D  
 Location: Boston, MA  
 Project No.: 4867.20

### Log of Monitoring Well SH-308W

Ground Elevation: 18 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Truck-mounted Mobile B-53, Drive and Wash w/ PW (5"), HW (4"), and NW (3") Casing

Sampling Method: Automatic Hammer, 24" Long by 2" O.D. Split-Spoon

#### Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
10/09/22	07:10	8.5'	Ground Surface	58'	58'	17 Hours
10/19/22	---	9.2'	Top of PVC	Well Installed	Well Installed	8 Days
10/28/22	---	10.5'	Top of PVC	Well Installed	Well Installed	17 Days

Drilling Company: New England Boring Contractors

Foreman: C. Knight

Date Started: 10/07/22

Date Finished: 10/11/22

Logged By: R. Henderson

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800SI\4867.10\WORK\LOGS\4867.10 LOGS.GPJ, 2017 SANBORN HEAD V1.GLB, 2017 SANBORN HEAD V1.GDT 1/26/23

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
78	S-22	78 - 80	33 30 37 29	24/16	PID: NA		S-22 (78 to 80'): Very dense, gray, fine to coarse SAND and Gravel, little Silt, trace Clay. Wet. TILL.  S-23 (83 to 85'): Very dense, gray, fine to coarse SAND and Gravel, little Silt, trace Clay. Wet. TILL.		Filter Sand (79 to 93.2')	
80										GLACIAL TILL
82										
84	S-23	83 - 85	44 48 51 100	24/17	PID: NA					
86										
88	S-24	88 - 88.3	100/3"	3/3	PID: NA		S-24 (88 to 88.3'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.  S-25 (93 to 93.2'): Very soft to soft, very severely weathered, blue/gray, very fine-grained, WEATHERED ARGILLITE.			
90										WEATHERED BEDROCK
92										
94	S-25	93 - 93.2	100/2"	2/2	PID: NA					
96										
98										
100										
102										
104										

**NOTES:**

1. Soil samples were screened for volatile organic compounds (VOCs) using a Ion Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.

Boring terminated at 93.2 feet.





Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-306

Ground Elevation: 17 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/02/22	---	10'	Ground Surface	N/A	10'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/02/22

Date Finished: 12/02/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800\SI\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description		
0	S-1	0 - 5	5.0/ 0.8	PID: NA PID: ND		----	S-1A (0 to 0.3'): ASPHALT.	
2						----	S-1B (0.3 to 5'): Brown, fine to coarse SAND, little Gravel, trace Silt, very few Ash particles. Moist. FILL.	
6	S-2	5 - 10	5.0/ 1.4	PID: 68 ppmv		FILL	S-2 (5 to 10'): Brown to tan, fine to coarse SAND, little Gravel, trace Silt, very few Plastic Sheeting fragments. Moist. FILL.	
10	S-3	10 - 15	5.0/ 3.5	PID: ND		SAND	S-3 (10 to 15'): Light brown, fine to coarse SAND, little Gravel, trace Silt. Wet.	
15							Boring terminated at approximately 15 feet. No refusal encountered.	
NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion. 3. VOC sample collected at 6 feet. VPH sample collected at 12 feet. EPH sample collected from 10 to 15 feet.								



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-307

Ground Elevation: 17 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/05/22	---	9.4'	Ground Surface	N/A	10'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/05/22

Date Finished: 12/05/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800SI\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description		
0	S-1	0 - 5	5.0/1.7	PID: NA PID: ND	[Dashed pattern]	---0'--- ---0.3'---	S-1A (0 to 0.3'): ASPHALT.	
2						FILL	S-1B (0.3 to 5'): Black, fine to coarse SAND and Gravel, common Concrete fragments, few Brick particles/fragments, trace Silt, very few Ash specks. Moist. FILL.	
5	S-2	5 - 10	5.0/2.6	PID: 2 ppmv  PID: ND	[Dotted pattern]	---6.8'---	S-2A (5 to 6.8'): Black, fine to coarse SAND and Gravel, common Concrete fragments, few Brick particles/fragments, trace Silt, very few Ash specks. Moist. FILL.	
8						SAND	S-2B (6.8 to 9.4'): Brown, fine to coarse SAND, some Gravel, trace Silt. Moist.	
10	S-3	10 - 15	5.0/2.6	PID: 26 ppmv PID: 1 ppmv  PID: 31 ppmv		SAND	S-2C (9.4 to 10'): Gray to black, fine to coarse SAND, some Gravel, little Silt. Wet. Pockets of oil saturated zones. S-3A (10 to 13.2'): Gray to black, fine to coarse SAND, some Gravel, little Silt. Wet. Pockets of oil saturated zones.	
15						---15'---	S-3B (13.2 to 15'): Brown, fine to coarse SAND, some Gravel, trace Silt. Wet.	
15							Boring terminated at approximately 15 feet. No refusal encountered.	
							NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion. 3. VOC sample collected at 6 feet. VPH sample collected at 14.5 feet. EPH sample collected from 13 to 15 feet.	



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-308

Ground Elevation: 20 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/02/22	---	10'	Ground Surface	N/A	15'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/02/22

Date Finished: 12/02/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800S\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks	
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description			
0	S-1	0 - 5	5.0/1.5	PID: ND		---0'---	S-1 (0 to 5'): Brown to black, fine to coarse SAND, some Gravel, trace Silt, very few Brick particles/fragments, very few Fabric fragments. Moist. FILL.		
2									
4									
6	S-2	5 - 10	5.0/2.1	PID: ND		FILL	S-2 (5 to 10'): Brown to tan, fine to coarse SAND and Gravel, trace Silt. Moist. FILL.		
8									
10	S-3	10 - 13.2	3.2/2.5	PID: 4 ppmv PID: ND			S-3A (10 to 10.8'): Black, fine to coarse SAND, some Gravel, little Silt, very few Rubber particles. Wet. Oil saturated. FILL.		
12						SAND	S-3B (10.8 to 13.2'): Brown, fine to coarse SAND, some Gravel, trace Silt. Wet.		
14							Boring terminated at approximately 13.2 feet due to refusal.		
16							NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion. 3. VOC sample collected at 3 feet. VPH sample collected at 12 feet. EPH sample collected from 11 to 13.2 feet.		
18									
20									
22									
24									



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-309

Ground Elevation: 17 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/02/22	---	8'	Ground Surface	N/A	10'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/02/22

Date Finished: 12/02/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800SI\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description		
0	S-1	0 - 5	5.0/1.7	PID: 1 ppmv		---0'---	S-1 (0 to 5'): Dark brown, fine to coarse SAND, some Gravel, trace Silt, very few Brick particles/fragments, very few Ash particles. Moist. FILL.	
2						FILL		
5	S-2	5 - 10	5.0/3.2	PID: ND		---5'---	S-2A (5 to 7.8'): Black to brown, fine to coarse SAND, little Gravel, trace Silt. Moist.	
6						SAND		
7.8				PID: 97 ppmv		---7.8'---	S-2B (7.8 to 10'): Brown, fine to coarse GRAVEL, some Sand, trace Silt. Moist to wet. Oil saturated.	
8						GRAVEL		
10	S-3	10 - 15	5.0/2.3	PID: ND		---10'---	S-3 (10 to 15'): Brown, fine to coarse SAND, some Gravel, trace Silt. Wet.	
12						SAND		
15						---15'---	Boring terminated at approximately 15 feet. No refusal encountered.	
16								
18								
20								
22								
24								

**NOTES:**

- Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs.
- Borehole was backfilled with cuttings to the ground surface upon completion.
- VOC sample collected at 3 feet. VPH sample collected at 12.5 feet. EPH sample collected from 10 to 15 feet.



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-310

Ground Elevation: 20.5 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/02/22	---	10'	Ground Surface	N/A	10'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/02/22

Date Finished: 12/02/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSER\2\SHDATA\4800S\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description		
0	S-1	0 - 5	5.0/2.5	PID: ND	[Dashed pattern]	---0'---	S-1 (0 to 5'): Dark brown to black, fine to coarse SAND, some Gravel, little Silt, few Concrete fragments, very few Brick particles, very few Root fragments. Moist. FILL.	
2								
4								
6	S-2	5 - 10	5.0/0.8	PID: 14 ppmv		FILL	S-2 (5 to 10'): Dark brown, fine to coarse SAND, little Gravel, little Silt, few Brick particles/fragments. Moist. FILL.	
8								
10	S-3	10 - 15	5.0/1.3	PID: 3 ppmv		---10'---	S-3A (10 to 11.6'): Gray, fine to coarse GRAVEL and Sand, trace Silt. Wet. Numerous Oil globules.	
12				PID: ND		---11.6'---	S-3B (11.6 to 15'): Gray, fine to coarse SAND, little Gravel, trace Silt. Wet. Common Oil globules observed on exterior of MacroCore.	
14						SAND		
16	S-4	15 - 20	5.0/3.3	PID: 11 ppmv		---15'---	S-4A (15 to 17.5'): Brown to gray, fine to coarse SAND and Gravel, trace Silt. Wet. Frequent Oil globules.	
18				PID: ND		SAND & GRAVEL	S-4B (17.5 to 20'): Orange-brown, fine to coarse GRAVEL and Sand, trace Silt. Wet.	
20						---20'---	Boring terminated at approximately 20 feet. No refusal encountered.	
22							NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion. 3. VOC sample collected at 6 feet. VPH sample collected at 19 feet. EPH sample collected from 17.5 to 20 feet.	
24								
26								
28								
30								



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-311

Ground Elevation: 17 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/05/22	---	8'	Ground Surface	N/A	10'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/05/22

Date Finished: 12/05/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSER\2\SHDATA\4800\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description		
0	S-1	0 - 5	5.0/ 2.0	PID: NA PID: ND	[Symbol]	----0'----	S-1A (0 to 0.5'): ASPHALT.	
						----0.5'----	S-1B (0.5 to 5'): Dark brown to tan, fine to coarse SAND, some Gravel, trace Silt, very few Ash specks. Moist. FILL.	
2							FILL	
4								
6	S-2	5 - 10	5.0/ 1.9	PID: 70 ppmv	[Symbol]	----5'----	S-2A (5 to 8'): Gray, fine to coarse SAND and Gravel, trace Silt. Moist.	
8							S-2B (8 to 10'): Black, fine to coarse SAND and Gravel, trace Silt. Wet. Oil saturated.	
10	S-3	10 - 15	5.0/ 2.7	PID: 10 ppmv	[Symbol]	----10'----	S-3 (10 to 15'): Gray, fine to coarse SAND, some Gravel, trace Silt. Wet. Pockets of oil saturated zones at 10 to 10.3 feet, 13 feet, and 13.8 feet.	
12							SAND	
14								
16	S-4	15 - 20	5.0/ 2.7	PID: 4 ppmv	[Symbol]	----15'----	S-4 (15 to 20'): Gray, fine to coarse SAND and Gravel, trace Silt. Wet.	
18							SAND & GRAVEL	
20						----20'----	Boring terminated at approximately 20 feet. No refusal encountered.	
22							NOTES:	
24							1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs.	
26							2. Borehole was backfilled with cuttings to the ground surface upon completion.	
28							3. VPH sample collected at 17.5 feet. EPH sample collected from 15 to 20 feet.	
30								



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Monitoring Well SH-GP-313W

Ground Elevation: 21 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/05/22	---	12'	Ground Surface	N/A	15'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/05/22

Date Finished: 12/05/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800S\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description			
0	S-1	0 - 5	5.0/ 1.0	PID: ND		-----0'-----	S-1 (0 to 5'): Dark brown, fine to coarse SAND, little Gravel, trace Silt, very few Brick specks/particles/fragments, very few Root fragments. Moist. FILL.		4" Dia. Flushmounted Road Box Set in Concrete (0 to 1')
2									Soil Cuttings (0.4 to 6')
4									2" Dia. Sch. 40 PVC Riser (0.4 to 8')
6	S-2	5 - 10	5.0/ 2.0	PID: ND		FILL	S-2 (5 to 10'): Dark brown, fine to coarse SAND, some Gravel, trace Silt, very few Clinker specks/particles/fragments. Moist. FILL.		Bentonite Chips (6 to 7')
8									
10	S-3	10 - 15	5.0/ 2.3	PID: ND		-----10'-----	S-3 (10 to 15'): Dark brown, fine to coarse SAND, some Gravel, trace Silt. Moist to wet.		Filter Sand (7 to 18')
12									2" Dia. Sch. 40 PVC Well Screen (0.010" Slots) (8 to 18')
14									
16	S-4	15 - 20	5.0/ 4.6	PID: ND		SAND	S-4 (15 to 20'): Dark brown, fine to coarse SAND, some Gravel, trace Silt. Wet.		
18									
20						-----20'-----	Boring terminated at approximately 20 feet. No refusal encountered.		Formation Material (18 to 20')
22							NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. VOC sample collected at 3 feet. VPH sample collected at 15.5 feet. EPH sample collected from 13 to 18 feet.		
24									
26									
28									
30									



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-315

Ground Elevation: 21 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/05/22	---	13'	Ground Surface	N/A	15'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/05/22

Date Finished: 12/05/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800S\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks	
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description			
0	S-1	0 - 5	5.0/1.6	PID: ND	FILL	----	S-1 (0 to 5'): Black, fine to coarse SAND, little Gravel, trace Silt, very few Brick specks/particles/fragments, very few Ash specks, very few Root fragments. Moist. FILL.		
2									
4									
6	S-2	5 - 10	5.0/1.3	PID: ND			S-2 (5 to 10'): Black, fine to coarse SAND, some Gravel, trace Silt, very few Brick specks/particles, very few Ash specks. Moist. FILL.		
8									
10	S-3	10 - 15	5.0/2.7	PID: ND			S-3A (10 to 13'): Black, fine to coarse SAND, some Gravel, trace Silt, few Brick fragments at 13 feet. Moist. FILL.		
12									
14				PID: 97 ppmv		----	S-3B (13 to 15'): Black, fine to coarse SAND, some Gravel, trace Silt. Wet. Oil saturated.		
16	S-4	15 - 20	5.0/4.2	PID: 79 ppmv			S-4A (15 to 18.4'): Gray, fine to coarse SAND, little Gravel, trace Silt. Wet. Pockets of oil saturated zones.		
18									
20				PID: 6 ppmv		----	S-4B (18.4 to 20'): Brown to orange-brown, fine to coarse SAND, little Gravel, little Silt. Wet.		
22									
24									
26									
28									
30									

**NOTES:**

- Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs.
- Borehole was backfilled with cuttings to the ground surface upon completion.
- VOC sample collected at 3 feet. VPH sample collected at 19 feet. EPH sample collected from 18.4 to 20 feet.





Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-316

Ground Elevation: 21 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/05/22	---	13'	Ground Surface	N/A	15'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/05/22

Date Finished: 12/05/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSER\2\SHDATA\4800\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks	
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description			
0	S-1	0 - 5	5.0/2.3	PID: ND	[Dashed pattern]	---0'---	S-1 (0 to 5'): Tan to black, fine to coarse SAND, some Gravel, common Clinker fragments, few Ash specks, very few Brick specks/particles/fragments, trace Silt. Moist. FILL.		
2									
4					[Dashed pattern]		S-2A (5 to 6.2'): Tan to black, fine to coarse SAND, some Gravel, common Clinker fragments, few Ash specks, very few Brick specks/particles/fragments, trace Silt. Moist. FILL. S-2B (6.2 to 10'): Tan, fine to coarse SAND, some Gravel, trace Silt, few Concrete fragments. Moist. FILL.		
6	S-2	5 - 10	5.0/2.4	PID: ND		FILL			
8				PID: ND					
10	S-3	10 - 15	5.0/3.7	PID: ND	[Dotted pattern]	---10'---	S-3A (10 to 13.5'): Brown, fine to coarse SAND, some Gravel, trace Silt. Moist.		
12						SAND			
14				PID: 1 ppmv	[Dotted pattern]	---13.5'---	S-3B (13.5 to 15'): Gray, fine to coarse GRAVEL, some Sand, trace Silt. Wet. Few Oil globules.		
16	S-4	15 - 20	5.0/3.5	PID: 1 ppmv					S-4A (15 to 16.5'): Gray, fine to coarse GRAVEL, some Sand, trace Silt. Wet. Few Oil globules.
18				PID: ND		GRAVEL			S-4B (16.5 to 20'): Orange-brown, fine to coarse GRAVEL, some Sand, little Silt. Wet.
20						---20'---	Boring terminated at approximately 20 feet. No refusal encountered.		
22	NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion. 3. VOC sample collected at 3 feet. VPH sample collected at 18 feet. EPH sample collected from 16.5 to 20 feet.								
24									
26									
28									
30									



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-317

Ground Elevation: 20 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/02/22	---	13'	Ground Surface	N/A	15'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/02/22

Date Finished: 12/02/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSER\2\SHDATA\4800S\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description		
0	S-1	0 - 5	5.0/1.9	PID: ND	[Diagram: Dashed lines representing fill]	---0'---	S-1 (0 to 5'): Gray, fine to coarse GRAVEL, some Sand, trace Silt. Moist. FILL.	
2						FILL		
5	S-2	5 - 10	5.0/1.5	PID: ND	[Diagram: Dotted pattern representing gravel and sand]	---5'---	S-2 (5 to 10'): Gray, fine to coarse GRAVEL and Sand, trace Silt. Moist.	
6						GRAVEL & SAND		
10	S-3	10 - 15	5.0/2.5	PID: ND	[Diagram: Dotted pattern representing sand]	---10'---	S-3A (10 to 13'): Gray to brown, fine to coarse SAND, some Gravel, trace Silt. Moist.	
12				PID: 57 ppmv		SAND	S-3B (13 to 15'): Black, fine to coarse SAND, some Gravel, trace Silt. Wet. Oil saturated.	
15	S-4	15 - 20	5.0/2.7	PID: 67 ppmv	[Diagram: Dotted pattern representing sand]		S-4A (15 to 17'): Gray to black, fine to coarse SAND, some Gravel, trace Silt. Wet. Heavy oil staining.	
17				PID: 2 ppmv			---17'---	S-4B (17 to 20'): Gray, GRAVEL, some Sand, trace Silt. Wet.
18					GRAVEL			
20						---20'---	Boring terminated at approximately 20 feet. No refusal encountered.	
22	NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion. 3. VOC sample collected at 3 feet. VPH sample collected at 18.5 feet. EPH sample collected from 17 to 20 feet.							



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-318

Ground Elevation: 17 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/02/22	---	No Groundwater Observed		N/A	4.5'	---

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/02/22

Date Finished: 12/02/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800S\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description		
0	S-1	0 - 4.5	4.5/ 2.1	PID: ND		----0'----	S-1 (0 to 4.5'): Dark brown to black, fine to coarse SAND, little Gravel, trace Silt, very few Ash particles, very few Slag particles, very few Brick particles. Moist. FILL.	
2						FILL		
4						----4.5'----	Boring terminated at approximately 4.5 feet due to refusal.	
6							NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion. 3. VOC sample collected at 2 feet.	
8								
10								
12								
14								
16								
18								
20								
22								
24								



Project: 776 Summer Street  
 Location: Boston, MA  
 Project No.: 4867.02

### Log of Boring SH-GP-319

Ground Elevation: 18 ± feet  
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Track-Mounted Geoprobe® 7822DT, Direct Push Methods

Sampling Method: 2.25" O.D., 5' Long MacroCore® Samplers

**Groundwater Readings**

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
12/05/22	---	11.5'	Ground Surface	N/A	11.7'	<5 Min

Drilling Company: G&M Subsurface

Foreman: B. Wilson

Date Started: 12/05/22

Date Finished: 12/05/22

Logged By: S. LaMarre

Checked By: A. Coen

BORING LOG \\WESSERV2\SHDATA\4800S\4867.02\WORK\LOGS\4867.02.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 2/2/23

Depth (ft)	Sample Information				Stratum		Geologic Description	Remarks	
	Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Log	Description			
0	S-1	0 - 5	5.0/ 2.2	PID: ND		----0'----	S-1 (0 to 5'): Black, fine to coarse SAND, some Gravel, common Clinker fragments, trace Silt, very few Brick particles, very few Ash specks. Moist. FILL.		
2									
4	S-2	5 - 10	5.0/ 1.4	PID: ND		FILL		S-2 (5 to 10'): Dark brown, fine to coarse SAND and Gravel, trace Silt, few Concrete fragments. Moist. FILL.	
6									
8									
10	S-3	10 - 11.7	1.7/ 1.7	PID: 10 ppmv				S-3 (10 to 11.7'): Dark brown, fine to coarse GRAVEL, some Sand, trace Silt. Moist to wet. Slight oil sheen. FILL.	
12						----11.7'----		Boring terminated at approximately 11.7 due to refusal.	
14								NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using an Ion Science Tiger Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC compounds, the results can serve as a relative indicator for the presence of VOCs. 2. Borehole was backfilled with cuttings to the ground surface upon completion.	
16									
18									
20									
22									
24									

## **Appendix C**

### **Laboratory Analytical Reports**



## ANALYTICAL REPORT

Lab Number:	L2260420
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.20
Report Date:	11/11/22

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2260420-01	SH-307	WATER	BOSTON, MA	10/26/22 14:50	10/28/22
L2260420-02	SH-308	WATER	BOSTON, MA	10/28/22 08:40	10/28/22

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

**MADEP MCP Response Action Analytical Report Certification**

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

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

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





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

---

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

### Case Narrative (continued)

#### MCP Related Narratives

##### Sample Receipt

The project number and the analyses performed were specified by the client.

##### Volatile Organics

In reference to question H:

L2260420-01 and -02: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0016)

Average Response Factor: 1,4-dioxane

L2260420-01 and -02: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

##### VPH

In reference to question I:

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

##### EPH

In reference to question G:

L2260420-01 and -02: One or more of the target analytes did not achieve the requested CAM reporting limits.

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

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 11/11/22

## QC OUTLIER SUMMARY REPORT

**Project Name:** 776 SUMMER ST.

**Lab Number:** L2260420

**Project Number:** 4867.20

**Report Date:** 11/11/22

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC	WG1710043-3	1,2-Dibromo-3-chloropropane	LCS	68	70-130	01-02	potential low bias
8260D	Batch QC	WG1710043-4	1,2-Dibromo-3-chloropropane	LCSD	66	70-130	01-02	potential low bias

# ORGANICS

# VOLATILES

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

**SAMPLE RESULTS**

Lab ID: L2260420-01  
 Client ID: SH-307  
 Sample Location: BOSTON, MA

Date Collected: 10/26/22 14:50  
 Date Received: 10/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 141,8260D  
 Analytical Date: 11/09/22 07:44  
 Analyst: MCM

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

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

## SAMPLE RESULTS

Lab ID: L2260420-01

Date Collected: 10/26/22 14:50

Client ID: SH-307

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Trichloroethene	1.4		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

**SAMPLE RESULTS**

Lab ID: L2260420-01  
 Client ID: SH-307  
 Sample Location: BOSTON, MA

Date Collected: 10/26/22 14:50  
 Date Received: 10/28/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	102		70-130



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

**SAMPLE RESULTS**

Lab ID: L2260420-02  
 Client ID: SH-308  
 Sample Location: BOSTON, MA

Date Collected: 10/28/22 08:40  
 Date Received: 10/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 141,8260D  
 Analytical Date: 11/09/22 08:07  
 Analyst: MCM

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

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

## SAMPLE RESULTS

Lab ID: L2260420-02

Date Collected: 10/28/22 08:40

Client ID: SH-308

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Trichloroethene	4.8		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	4.5		ug/l	1.0	--	1
1,2-Dichloroethene, Total	4.5		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

**SAMPLE RESULTS**

Lab ID: L2260420-02  
 Client ID: SH-308  
 Sample Location: BOSTON, MA

Date Collected: 10/28/22 08:40  
 Date Received: 10/28/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	107		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 11/09/22 05:51  
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG1710043-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

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

Analytical Method: 141,8260D  
Analytical Date: 11/09/22 05:51  
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG1710043-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

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

Analytical Method: 141,8260D  
Analytical Date: 11/09/22 05:51  
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG1710043-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	105		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1710043-3 WG1710043-4								
Methylene chloride	99		100		70-130	1		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	97		99		70-130	2		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	86		85		70-130	1		20
1,1,2-Trichloroethane	84		82		70-130	2		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	97		96		70-130	1		20
Trichlorofluoromethane	92		92		70-130	0		20
1,2-Dichloroethane	90		91		70-130	1		20
1,1,1-Trichloroethane	98		98		70-130	0		20
Bromodichloromethane	92		93		70-130	1		20
trans-1,3-Dichloropropene	83		83		70-130	0		20
cis-1,3-Dichloropropene	87		86		70-130	1		20
1,1-Dichloropropene	94		95		70-130	1		20
Bromoform	79		79		70-130	0		20
1,1,2,2-Tetrachloroethane	77		76		70-130	1		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		98		70-130	1		20
Chloromethane	130		120		70-130	8		20
Bromomethane	110		110		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1710043-3 WG1710043-4								
Vinyl chloride	110		110		70-130	0		20
Chloroethane	100		100		70-130	0		20
1,1-Dichloroethene	100		99		70-130	1		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	98		98		70-130	0		20
1,2-Dichlorobenzene	94		93		70-130	1		20
1,3-Dichlorobenzene	97		96		70-130	1		20
1,4-Dichlorobenzene	96		97		70-130	1		20
Methyl tert butyl ether	81		81		70-130	0		20
p/m-Xylene	110		105		70-130	5		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	86		88		70-130	2		20
1,2,3-Trichloropropane	75		72		70-130	4		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	84		82		70-130	2		20
Acetone	95		94		70-130	1		20
Carbon disulfide	74		75		70-130	1		20
Methyl ethyl ketone	76		74		70-130	3		20
Methyl isobutyl ketone	93		89		70-130	4		20
2-Hexanone	88		84		70-130	5		20
Bromochloromethane	100		100		70-130	0		20
Tetrahydrofuran	94		86		70-130	9		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1710043-3 WG1710043-4								
2,2-Dichloropropane	94		96		70-130	2		20
1,2-Dibromoethane	87		87		70-130	0		20
1,3-Dichloropropane	87		87		70-130	0		20
1,1,1,2-Tetrachloroethane	92		90		70-130	2		20
Bromobenzene	94		94		70-130	0		20
n-Butylbenzene	87		88		70-130	1		20
sec-Butylbenzene	97		97		70-130	0		20
tert-Butylbenzene	99		100		70-130	1		20
o-Chlorotoluene	93		94		70-130	1		20
p-Chlorotoluene	94		94		70-130	0		20
1,2-Dibromo-3-chloropropane	68	Q	66	Q	70-130	3		20
Hexachlorobutadiene	83		85		70-130	2		20
Isopropylbenzene	97		98		70-130	1		20
p-Isopropyltoluene	95		95		70-130	0		20
Naphthalene	74		74		70-130	0		20
n-Propylbenzene	96		97		70-130	1		20
1,2,3-Trichlorobenzene	82		81		70-130	1		20
1,2,4-Trichlorobenzene	80		82		70-130	2		20
1,3,5-Trimethylbenzene	88		88		70-130	0		20
1,2,4-Trimethylbenzene	87		87		70-130	0		20
Diethyl ether	84		82		70-130	2		20
Diisopropyl Ether	110		110		70-130	0		20
Ethyl-Tert-Butyl-Ether	99		98		70-130	1		20

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1710043-3 WG1710043-4								
Tertiary-Amyl Methyl Ether	83		83		70-130	0		20
1,4-Dioxane	82		78		70-130	5		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	94		94		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	90		91		70-130
Dibromofluoromethane	101		100		70-130

# PETROLEUM HYDROCARBONS

**Project Name:** 776 SUMMER ST.**Lab Number:** L2260420**Project Number:** 4867.20**Report Date:** 11/11/22**SAMPLE RESULTS**

Lab ID: L2260420-01

Date Collected: 10/26/22 14:50

Client ID: SH-307

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 131, VPH-18-2.1

Analytical Date: 11/08/22 20:29

Analyst: BAD

Trap: EST, Carboxen B/Carboxen 1000&amp;1001

Analytical Column: Restek, RTX-502.2,  
105m, 0.53ID, 3um**Quality Control Information**

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved

Sample Temperature upon receipt:

Container  
Received on Ice

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

C5-C8 Aliphatics	ND		ug/l	100	--	1
C9-C12 Aliphatics	ND		ug/l	100	--	1
C9-C10 Aromatics	ND		ug/l	100	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	113		70-130
2,5-Dibromotoluene-FID	112		70-130

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

## SAMPLE RESULTS

Lab ID: L2260420-01

Date Collected: 10/26/22 14:50

Client ID: SH-307

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 135,EPH-19-2.1

Extraction Date: 11/03/22 11:39

Analytical Date: 11/04/22 13:52

Cleanup Method1: EPH-19-2.1

Analyst: SC

Cleanup Date1: 11/04/22

## Quality Control Information

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved  
Container

Sample Temperature upon receipt:

Received on Ice

Sample Extraction method:

Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1
Naphthalene	ND		ug/l	10.0	--	1
2-Methylnaphthalene	ND		ug/l	10.0	--	1
Acenaphthylene	ND		ug/l	10.0	--	1
Acenaphthene	ND		ug/l	10.0	--	1
Fluorene	ND		ug/l	10.0	--	1
Phenanthrene	ND		ug/l	10.0	--	1
Anthracene	ND		ug/l	10.0	--	1
Fluoranthene	ND		ug/l	10.0	--	1
Pyrene	ND		ug/l	10.0	--	1
Benzo(a)anthracene	ND		ug/l	10.0	--	1
Chrysene	ND		ug/l	10.0	--	1
Benzo(b)fluoranthene	ND		ug/l	10.0	--	1
Benzo(k)fluoranthene	ND		ug/l	10.0	--	1
Benzo(a)pyrene	ND		ug/l	10.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--	1
Benzo(ghi)perylene	ND		ug/l	10.0	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2260420**Project Number:** 4867.20**Report Date:** 11/11/22**SAMPLE RESULTS**

Lab ID: L2260420-01

Date Collected: 10/26/22 14:50

Client ID: SH-307

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	57		40-140
o-Terphenyl	68		40-140
2-Fluorobiphenyl	73		40-140
2-Bromonaphthalene	77		40-140

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

## SAMPLE RESULTS

Lab ID: L2260420-02

Date Collected: 10/28/22 08:40

Client ID: SH-308

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 131, VPH-18-2.1

Analytical Date: 11/08/22 20:59

Analyst: BAD

Trap: EST, Carboxen B/Carboxen 1000&amp;1001

Analytical Column: Restek, RTX-502.2,  
105m, 0.53ID, 3um

## Quality Control Information

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved  
Container

Sample Temperature upon receipt:

Received on Ice

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

C5-C8 Aliphatics	ND		ug/l	100	--	1
C9-C12 Aliphatics	ND		ug/l	100	--	1
C9-C10 Aromatics	ND		ug/l	100	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	109		70-130
2,5-Dibromotoluene-FID	108		70-130

**Project Name:** 776 SUMMER ST.**Lab Number:** L2260420**Project Number:** 4867.20**Report Date:** 11/11/22**SAMPLE RESULTS**

Lab ID: L2260420-02

Date Collected: 10/28/22 08:40

Client ID: SH-308

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 135,EPH-19-2.1

Extraction Date: 11/03/22 11:39

Analytical Date: 11/04/22 14:17

Cleanup Method1: EPH-19-2.1

Analyst: SC

Cleanup Date1: 11/04/22

**Quality Control Information**

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved  
Container

Sample Temperature upon receipt:

Received on Ice

Sample Extraction method:

Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1
Naphthalene	ND		ug/l	10.0	--	1
2-Methylnaphthalene	ND		ug/l	10.0	--	1
Acenaphthylene	ND		ug/l	10.0	--	1
Acenaphthene	ND		ug/l	10.0	--	1
Fluorene	ND		ug/l	10.0	--	1
Phenanthrene	ND		ug/l	10.0	--	1
Anthracene	ND		ug/l	10.0	--	1
Fluoranthene	ND		ug/l	10.0	--	1
Pyrene	ND		ug/l	10.0	--	1
Benzo(a)anthracene	ND		ug/l	10.0	--	1
Chrysene	ND		ug/l	10.0	--	1
Benzo(b)fluoranthene	ND		ug/l	10.0	--	1
Benzo(k)fluoranthene	ND		ug/l	10.0	--	1
Benzo(a)pyrene	ND		ug/l	10.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--	1
Benzo(ghi)perylene	ND		ug/l	10.0	--	1



**Project Name:** 776 SUMMER ST.**Lab Number:** L2260420**Project Number:** 4867.20**Report Date:** 11/11/22**SAMPLE RESULTS**

Lab ID: L2260420-02

Date Collected: 10/28/22 08:40

Client ID: SH-308

Date Received: 10/28/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	50		40-140
o-Terphenyl	65		40-140
2-Fluorobiphenyl	74		40-140
2-Bromonaphthalene	77		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 11/04/22 10:06  
Analyst: SR

Extraction Method: EPA 3510C  
Extraction Date: 11/03/22 11:39  
Cleanup Method: EPH-19-2.1  
Cleanup Date: 11/04/22

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02 Batch: WG1707768-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--
Naphthalene	ND		ug/l	10.0	--
2-Methylnaphthalene	ND		ug/l	10.0	--
Acenaphthylene	ND		ug/l	10.0	--
Acenaphthene	ND		ug/l	10.0	--
Fluorene	ND		ug/l	10.0	--
Phenanthrene	ND		ug/l	10.0	--
Anthracene	ND		ug/l	10.0	--
Fluoranthene	ND		ug/l	10.0	--
Pyrene	ND		ug/l	10.0	--
Benzo(a)anthracene	ND		ug/l	10.0	--
Chrysene	ND		ug/l	10.0	--
Benzo(b)fluoranthene	ND		ug/l	10.0	--
Benzo(k)fluoranthene	ND		ug/l	10.0	--
Benzo(a)pyrene	ND		ug/l	10.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--
Benzo(ghi)perylene	ND		ug/l	10.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	65		40-140
o-Terphenyl	73		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	80		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 131, VPH-18-2.1  
Analytical Date: 11/08/22 18:29  
Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02 Batch: WG1710139-4					
C5-C8 Aliphatics	ND		ug/l	100	--
C9-C12 Aliphatics	ND		ug/l	100	--
C9-C10 Aromatics	ND		ug/l	100	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	105		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2260420

Project Number: 4867.20

Report Date: 11/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG1707768-2 WG1707768-3								
C9-C18 Aliphatics	72		89		40-140	21		25
C19-C36 Aliphatics	75		78		40-140	4		25
C11-C22 Aromatics	80		74		40-140	8		25
Naphthalene	67		61		40-140	9		25
2-Methylnaphthalene	70		64		40-140	9		25
Acenaphthylene	71		65		40-140	9		25
Acenaphthene	74		67		40-140	10		25
Fluorene	76		69		40-140	10		25
Phenanthrene	76		71		40-140	7		25
Anthracene	77		72		40-140	7		25
Fluoranthene	79		74		40-140	7		25
Pyrene	79		74		40-140	7		25
Benzo(a)anthracene	81		76		40-140	6		25
Chrysene	83		78		40-140	6		25
Benzo(b)fluoranthene	78		73		40-140	7		25
Benzo(k)fluoranthene	76		71		40-140	7		25
Benzo(a)pyrene	81		75		40-140	8		25
Indeno(1,2,3-cd)Pyrene	78		72		40-140	8		25
Dibenzo(a,h)anthracene	84		78		40-140	7		25
Benzo(ghi)perylene	73		67		40-140	9		25

## Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG1707768-2 WG1707768-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Chloro-Octadecane	63		67		40-140
o-Terphenyl	73		68		40-140
2-Fluorobiphenyl	76		70		40-140
2-Bromonaphthalene	79		73		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

## Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG1710139-2 WG1710139-3								
C5-C8 Aliphatics	112		113		70-130	1		25
C9-C12 Aliphatics	112		113		70-130	1		25
C9-C10 Aromatics	112		111		70-130	1		25
Benzene	105		105		70-130	0		25
Toluene	106		105		70-130	1		25
Ethylbenzene	113		112		70-130	1		25
p/m-Xylene	112		111		70-130	1		25
o-Xylene	111		110		70-130	1		25
Methyl tert butyl ether	110		108		70-130	2		25
Naphthalene	120		119		70-130	1		25
1,2,4-Trimethylbenzene	112		111		70-130	1		25
Pentane	105		106		70-130	1		25
2-Methylpentane	103		104		70-130	1		25
2,2,4-Trimethylpentane	111		112		70-130	1		25
n-Nonane	110		112		30-130	2		25
n-Decane	112		114		70-130	2		25
n-Butylcyclohexane	113		114		70-130	1		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,5-Dibromotoluene-PID	123		121		70-130
2,5-Dibromotoluene-FID	122		120		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

Serial\_No:11112215:15  
**Lab Number:** L2260420  
**Report Date:** 11/11/22

**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

**Cooler**                      **Custody Seal**  
A                                      Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2260420-01A	Vial HCl preserved	A	NA		5.5	Y	Absent		MCP-8260-21(14)
L2260420-01B	Vial HCl preserved	A	NA		5.5	Y	Absent		MCP-8260-21(14)
L2260420-01C	Vial HCl preserved	A	NA		5.5	Y	Absent		MCP-8260-21(14)
L2260420-01D	Vial HCl preserved	A	NA		5.5	Y	Absent		VPH-18(14)
L2260420-01E	Vial HCl preserved	A	NA		5.5	Y	Absent		VPH-18(14)
L2260420-01F	Vial HCl preserved	A	NA		5.5	Y	Absent		VPH-18(14)
L2260420-01G	Amber 1000ml HCl preserved	A	<2	<2	5.5	Y	Absent		EPH-DELUX-20(14)
L2260420-01H	Amber 1000ml HCl preserved	A	<2	<2	5.5	Y	Absent		EPH-DELUX-20(14)
L2260420-02A	Vial HCl preserved	A	NA		5.5	Y	Absent		MCP-8260-21(14)
L2260420-02B	Vial HCl preserved	A	NA		5.5	Y	Absent		MCP-8260-21(14)
L2260420-02C	Vial HCl preserved	A	NA		5.5	Y	Absent		MCP-8260-21(14)
L2260420-02D	Vial HCl preserved	A	NA		5.5	Y	Absent		VPH-18(14)
L2260420-02E	Vial HCl preserved	A	NA		5.5	Y	Absent		VPH-18(14)
L2260420-02F	Vial HCl preserved	A	NA		5.5	Y	Absent		VPH-18(14)
L2260420-02G	Amber 1000ml HCl preserved	A	<2	<2	5.5	Y	Absent		EPH-DELUX-20(14)
L2260420-02H	Amber 1000ml HCl preserved	A	<2	<2	5.5	Y	Absent		EPH-DELUX-20(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

### Footnotes

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

### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

#### **Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.20

**Lab Number:** L2260420  
**Report Date:** 11/11/22

## REFERENCES

- 131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.
- 135 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, December 2019, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, March 1, 2020.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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**

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



# CHAIN OF CUSTODY

PAGE 1 OF 1

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

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

Date Rec'd In Lab: 10/28/22  
ALPHA Job #: L2260420

**Client Information**  
Client: Sanborn Head and ASSOC.  
Address: 1 Technology Park Dr.  
Westford MA  
Phone: 857-327-9730  
Email: ACoen; HSanderson

**Project Information**  
Project Name: 776 Summer St  
Project Location: Boston, MA  
Project #: 4867.02  
Project Manager: Adam Coen  
ALPHA Quote #:

**Report Information - Data Deliverables**  
 ADEX  EMAIL

**Billing Information**  
 Same as Client info PO #:

**Additional Project Information:**  
@SanbornHead.com

**Turn-Around Time**  
 Standard  RUSH (only confirmed if pre-approved)  
Date Due:

**Regulatory Requirements & Project Information Requirements**  
 Yes  No MA MCP Analytical Methods  Yes  No CT RCP Analytical Methods  
 Yes  No Matrix Spike Required on this SDG? (Required for MCP Inorganics)  
 Yes  No GW1 Standards (Info Required for Metals & EPH with Targets)  
 Yes  No NPDES RGP  
 Other State /Fed Program \_\_\_\_\_ Criteria \_\_\_\_\_

<b>ANALYSIS</b>	<b>VOC:</b> <input checked="" type="checkbox"/> 6260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	<b>SVOC:</b> <input type="checkbox"/> ABN <input type="checkbox"/> PAH	<b>METALS:</b> <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	<b>EPH:</b> <input checked="" type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<b>VPH:</b> <input checked="" type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<b>PCB</b> <input type="checkbox"/> PEST	<b>TPH:</b> <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	<b>SAMPLE INFO</b>	TOTAL # BOTTLES
							Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS										Sample Comments	TOTAL # BOTTLES		
		Date	Time			VOC	SVOC	METALS	METALS	EPH	VPH	PCB	TPH	Quant Only	Fingerprint				
60420-01	SH-307	10/26/22	14:50	Water	ACB	X													8
02	SH-308	10/25/22	8:40	Water	ACB	X													8

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

**Preservative**  
A= None  
B= HCl  
C= HNO<sub>3</sub>  
D= H<sub>2</sub>SO<sub>4</sub>  
E= NaOH  
F= MeOH  
G= NaHSO<sub>4</sub>  
H= Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
I= Ascorbic Acid  
J= NH<sub>4</sub>Cl  
K= Zn Acetate  
O= Other

Container Type	V		A	V															
Preservative																			

Relinquished By: Date/Time: 10/28/22 10:55  
Received By: C. Sebeau AAL Date/Time: 10/28/22 1:55

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

# Method Blank Summary

## Form 4

### Volatiles

Client : Sanborn, Head & Associates, Inc.      Lab Number : L2260420  
Project Name : 776 SUMMER ST.      Project Number : 4867.20  
Lab Sample ID : WG1710043-5      Lab File ID : VQ221109A06  
Instrument ID : QUIMBY  
Matrix : WATER      Analysis Date : 11/09/22 05:51

Client Sample No.	Lab Sample ID	Analysis Date
WG1710043-3LCS	WG1710043-3	11/09/22 04:20
WG1710043-4LCSD	WG1710043-4	11/09/22 04:43
SH-307	L2260420-01	11/09/22 07:44
SH-308	L2260420-02	11/09/22 08:07

# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : QUIMBY  
 Lab File ID : VQ221109A02  
 Sample No : WG1710043-2  
 Channel :

Lab Number : L2260420  
 Project Number : 4867.20  
 Calibration Date : 11/09/22 04:20  
 Init. Calib. Date(s) : 09/15/22 09/15/22  
 Init. Calib. Times : 06:04 08:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	111	0
Dichlorodifluoromethane	0.258	0.216	-	16.3	20	88	0
Chloromethane	0.281	0.361	-	-28.5*	20	142	0
Vinyl chloride	0.232	0.26	-	-12.1	20	122	0
Bromomethane	0.127	0.144	-	-13.4	20	128	0
Chloroethane	0.142	0.142	-	0	20	109	0
Trichlorofluoromethane	0.392	0.362	-	7.7	20	98	0
Ethyl ether	0.113	0.095	-	15.9	20	95	0
1,1-Dichloroethene	0.22	0.225	-	-2.3	20	113	0
Carbon disulfide	0.529	0.394	-	25.5*	20	79	0
Freon-113	0.234	0.242	-	-3.4	20	113	0
Methylene chloride	0.242	0.24	-	0.8	20	111	0
Acetone	0.049	0.047	-	4.1	20	98	0
trans-1,2-Dichloroethene	0.228	0.243	-	-6.6	20	116	0
Methyl acetate	0.13	0.118	-	9.2	20	98	0
Methyl tert-butyl ether	0.561	0.456	-	18.7	20	90	0
tert-Butyl alcohol	0.016	0.013	-	18.8	20	88	0
Diisopropyl ether	0.817	0.918	-	-12.4	20	127	0
1,1-Dichloroethane	0.479	0.518	-	-8.1	20	118	0
Halothane	0.191	0.191	-	0	20	112	0
Acrylonitrile	0.055	0.056	-	-1.8	20	113	0
Ethyl tert-butyl ether	0.732	0.725	-	1	20	113	0
Vinyl acetate	0.522	0.475	-	9	20	102	0
cis-1,2-Dichloroethene	0.258	0.265	-	-2.7	20	114	0
2,2-Dichloropropane	0.464	0.434	-	6.5	20	107	0
Bromochloromethane	0.118	0.121	-	-2.5	20	109	0
Cyclohexane	0.459	0.58	-	-26.4*	20	138	0
Chloroform	0.446	0.441	-	1.1	20	110	0
Ethyl acetate	0.181	0.157	-	13.3	20	98	0
Carbon tetrachloride	0.378	0.366	-	3.2	20	104	0
Tetrahydrofuran	0.066	0.061	-	7.6	20	103	0
Dibromofluoromethane	0.264	0.267	-	-1.1	20	113	0
1,1,1-Trichloroethane	0.41	0.402	-	2	20	107	0
2-Butanone	0.085	0.064	-	24.7*	20	84	0
1,1-Dichloropropene	0.346	0.327	-	5.5	20	103	0
Benzene	0.956	0.962	-	-0.6	20	109	0
tert-Amyl methyl ether	0.621	0.515	-	17.1	20	97	0
1,2-Dichloroethane-d4	0.331	0.311	-	6	20	105	0
1,2-Dichloroethane	0.351	0.317	-	9.7	20	101	0
Methyl cyclohexane	0.45	0.439	-	2.4	20	111	0
Trichloroethene	0.246	0.241	-	2	20	106	0
Dibromomethane	10	8.654	-	13.5	20	93	0
1,2-Dichloropropane	0.254	0.266	-	-4.7	20	115	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : QUIMBY  
 Lab File ID : VQ221109A02  
 Sample No : WG1710043-2  
 Channel :

Lab Number : L2260420  
 Project Number : 4867.20  
 Calibration Date : 11/09/22 04:20  
 Init. Calib. Date(s) : 09/15/22 09/15/22  
 Init. Calib. Times : 06:04 08:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
2-Chloroethyl vinyl ether	0.128	0.108	-	15.6	20	98	0
Bromodichloromethane	0.353	0.327	-	7.4	20	104	0
1,4-Dioxane	0.00147	0.00122*	-	17	20	89	0
cis-1,3-Dichloropropene	0.419	0.366	-	12.6	20	96	0
Chlorobenzene-d5	1	1	-	0	20	108	0
Toluene-d8	1.326	1.31	-	1.2	20	109	0
Toluene	0.794	0.817	-	-2.9	20	112	0
4-Methyl-2-pentanone	0.079	0.074	-	6.3	20	104	0
Tetrachloroethene	0.329	0.338	-	-2.7	20	114	0
trans-1,3-Dichloropropene	0.498	0.413	-	17.1	20	91	0
Ethyl methacrylate	0.37	0.272	-	26.5*	20	84	0
1,1,2-Trichloroethane	0.205	0.172*	-	16.1	20	95	0
Chlorodibromomethane	0.313	0.269	-	14.1	20	94	0
1,3-Dichloropropane	0.44	0.383	-	13	20	95	0
1,2-Dibromoethane	0.231	0.201	-	13	20	96	0
2-Hexanone	0.16	0.141	-	11.9	20	98	0
Chlorobenzene	0.9	0.877	-	2.6	20	106	0
Ethylbenzene	1.57	1.561	-	0.6	20	105	0
1,1,1,2-Tetrachloroethane	0.334	0.307	-	8.1	20	99	0
p/m Xylene	0.607	0.653	-	-7.6	20	112	0
o Xylene	0.578	0.597	-	-3.3	20	107	0
Styrene	0.978	0.96	-	1.8	20	102	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	111	0
Bromoform	0.359	0.283	-	21.2*	20	89	0
Isopropylbenzene	3.124	3.024	-	3.2	20	103	0
4-Bromofluorobenzene	1.005	0.905	-	10	20	99	0
Bromobenzene	0.752	0.71	-	5.6	20	105	0
n-Propylbenzene	3.707	3.568	-	3.7	20	102	0
1,4-Dichlorobutane	0.813	0.824	-	-1.4	20	112	0
1,1,2,2-Tetrachloroethane	0.573	0.441	-	23*	20	91	0
4-Ethyltoluene	3.113	2.961	-	4.9	20	102	0
2-Chlorotoluene	2.595	2.421	-	6.7	20	100	0
1,3,5-Trimethylbenzene	2.747	2.417	-	12	20	96	0
1,2,3-Trichloropropane	0.496	0.372	-	25*	20	85	0
trans-1,4-Dichloro-2-buten	0.196	0.162	-	17.3	20	92	0
4-Chlorotoluene	2.344	2.206	-	5.9	20	102	0
tert-Butylbenzene	2.391	2.361	-	1.3	20	105	0
1,2,4-Trimethylbenzene	2.688	2.337	-	13.1	20	94	0
sec-Butylbenzene	3.438	3.33	-	3.1	20	101	0
p-Isopropyltoluene	3.085	2.943	-	4.6	20	101	0
1,3-Dichlorobenzene	1.489	1.445	-	3	20	107	0
1,4-Dichlorobenzene	1.469	1.413	-	3.8	20	105	0
p-Diethylbenzene	1.868	1.646	-	11.9	20	96	0

\* Value outside of QC limits.





## Calibration Verification Summary Form 7 Volatiles

Client	: Sanborn, Head & Associates, Inc.	Lab Number	: L2260420
Project Name	: 776 SUMMER ST.	Project Number	: 4867.20
Instrument ID	: QUIMBY	Calibration Date	: 11/09/22 04:20
Lab File ID	: VQ221109A02	Init. Calib. Date(s)	: 09/15/22      09/15/22
Sample No	: WG1710043-2	Init. Calib. Times	: 06:04      08:44
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	2.654	2.315	-	12.8	20	94	0
1,2-Dichlorobenzene	1.377	1.296	-	5.9	20	103	0
1,2,4,5-Tetramethylbenzene	2.87	2.293	-	20.1*	20	92	0
1,2-Dibromo-3-chloropropan	0.101	0.069	-	31.7*	20	80	0
1,3,5-Trichlorobenzene	1.173	0.973	-	17.1	20	95	0
Hexachlorobutadiene	0.518	0.431	-	16.8	20	93	0
1,2,4-Trichlorobenzene	1.039	0.829	-	20.2*	20	90	0
Naphthalene	2.112	1.563	-	26*	20	84	0
1,2,3-Trichlorobenzene	0.911	0.752	-	17.5	20	93	0

---

\* Value outside of QC limits.





## ANALYTICAL REPORT

Lab Number:	L2267824
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.02
Report Date:	12/16/22

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

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

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



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2267824-01	SH-GP-306 (6)	SOIL	BOSTON, MA	12/02/22 08:15	12/02/22
L2267824-02	SH-GP-306 (10-15)	SOIL	BOSTON, MA	12/02/22 08:30	12/02/22
L2267824-03	SH-GP-306 (12)	SOIL	BOSTON, MA	12/02/22 08:35	12/02/22
L2267824-04	SH-GP-308 (3)	SOIL	BOSTON, MA	12/02/22 09:40	12/02/22
L2267824-05	SH-GP-308 (12)	SOIL	BOSTON, MA	12/02/22 10:05	12/02/22
L2267824-06	SH-GP-308 (11-13.2)	SOIL	BOSTON, MA	12/02/22 10:10	12/02/22
L2267824-07	SH-GP-310 (6)	SOIL	BOSTON, MA	12/02/22 10:15	12/02/22
L2267824-08	SH-GP-310 (17.5-20)	SOIL	BOSTON, MA	12/02/22 10:45	12/02/22
L2267824-09	SH-GP-310 (19)	SOIL	BOSTON, MA	12/02/22 10:50	12/02/22
L2267824-10	SH-GP-309 (3)	SOIL	BOSTON, MA	12/02/22 11:30	12/02/22
L2267824-11	SH-GP-309 (10-15)	SOIL	BOSTON, MA	12/02/22 11:50	12/02/22
L2267824-12	SH-GP-309 (12.5)	SOIL	BOSTON, MA	12/02/22 11:45	12/02/22
L2267824-13	SH-GP-318 (2)	SOIL	BOSTON, MA	12/02/22 12:30	12/02/22
L2267824-14	SH-GP-317 (3)	SOIL	BOSTON, MA	12/02/22 13:10	12/02/22
L2267824-15	SH-GP-317 (17-20)	SOIL	BOSTON, MA	12/02/22 13:50	12/02/22
L2267824-16	SH-GP-317 (18.5)	SOIL	BOSTON, MA	12/02/22 14:00	12/02/22

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

### MADEP MCP Response Action Analytical Report Certification

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

---

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

### Case Narrative (continued)

#### Report Submission

December 16, 2022: This final report includes the results of all requested analyses.

December 13, 2022: This is a preliminary report.

#### MCP Related Narratives

##### Sample Receipt

L2267824-01 through -16: The Client ID was specified by the client.

L2267824-03: Sample containers for VOC 8260 analysis were received for the "SH-GP-306 (12)" sample, but were not listed on the chain of custody. At the client's request, the analysis was not performed.

L2267824-11: The collection date and time on the chain of custody was 02-DEC-22 11:45; however, the collection date/time on the container label was 02-DEC-22 11:50. At the client's request, the collection date/time is reported as 02-DEC-22 11:50.

L2267824-12: The collection date and time on the chain of custody was 02-DEC-22 11:50; however, the collection date/time on the container label was 02-DEC-22 11:45. At the client's request, the collection date/time is reported as 02-DEC-22 11:45.

#### Volatile Organics

L2267824-07 and -10: A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question H:

L2267824-07: The surrogate recovery is below the acceptance criteria for dibromofluoromethane (66%), possibly due to the matrix effect caused by the high pH of the sample (>10).

L2267824-01 and -04: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0022)

Average Response Factor: 1,4-dioxane

Verification: carbon disulfide (143%)

L2267824-07 and -10: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0012)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

### Case Narrative (continued)

Average Response Factor: 1,4-dioxane

Verification: carbon disulfide (145%)

L2267824-01 and -04: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

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

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 12/16/22

**QC OUTLIER SUMMARY REPORT****Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics by EPA 5035 Low - Westborough Lab								
8260D	SH-GP-310 (6)	L2267824-07	Dibromofluoromethane	Surrogate	66	70-130	-	potential low bias



# ORGANICS

# VOLATILES

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

Lab ID: L2267824-01  
 Client ID: SH-GP-306 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 08:15  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/07/22 13:30  
 Analyst: AJK  
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	3.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.78	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.78	--	1
1,2-Dichloropropane	ND		ug/kg	0.78	--	1
Dibromochloromethane	ND		ug/kg	0.78	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.78	--	1
Tetrachloroethene	ND		ug/kg	0.39	--	1
Chlorobenzene	ND		ug/kg	0.39	--	1
Trichlorofluoromethane	ND		ug/kg	3.1	--	1
1,2-Dichloroethane	ND		ug/kg	0.78	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.39	--	1
Bromodichloromethane	ND		ug/kg	0.39	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.78	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.39	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.39	--	1
1,1-Dichloropropene	ND		ug/kg	0.39	--	1
Bromoform	ND		ug/kg	3.1	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Benzene	ND		ug/kg	0.39	--	1
Toluene	ND		ug/kg	0.78	--	1
Ethylbenzene	ND		ug/kg	0.78	--	1
Chloromethane	ND		ug/kg	3.1	--	1
Bromomethane	ND		ug/kg	1.6	--	1
Vinyl chloride	ND		ug/kg	0.78	--	1
Chloroethane	ND		ug/kg	1.6	--	1
1,1-Dichloroethene	ND		ug/kg	0.78	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-01  
 Client ID: SH-GP-306 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 08:15  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.39	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	--	1
Methyl tert butyl ether	ND		ug/kg	1.6	--	1
p/m-Xylene	ND		ug/kg	1.6	--	1
o-Xylene	ND		ug/kg	0.78	--	1
Xylenes, Total	ND		ug/kg	0.78	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.78	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.78	--	1
Dibromomethane	ND		ug/kg	1.6	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	--	1
Styrene	ND		ug/kg	0.78	--	1
Dichlorodifluoromethane	ND		ug/kg	7.8	--	1
Acetone	ND		ug/kg	20	--	1
Carbon disulfide	ND		ug/kg	7.8	--	1
Methyl ethyl ketone	ND		ug/kg	7.8	--	1
Methyl isobutyl ketone	ND		ug/kg	7.8	--	1
2-Hexanone	ND		ug/kg	7.8	--	1
Bromochloromethane	ND		ug/kg	1.6	--	1
Tetrahydrofuran	ND		ug/kg	3.1	--	1
2,2-Dichloropropane	ND		ug/kg	1.6	--	1
1,2-Dibromoethane	ND		ug/kg	0.78	--	1
1,3-Dichloropropane	ND		ug/kg	1.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Bromobenzene	ND		ug/kg	1.6	--	1
n-Butylbenzene	ND		ug/kg	0.78	--	1
sec-Butylbenzene	ND		ug/kg	0.78	--	1
tert-Butylbenzene	ND		ug/kg	1.6	--	1
o-Chlorotoluene	ND		ug/kg	1.6	--	1
p-Chlorotoluene	ND		ug/kg	1.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.4	--	1
Hexachlorobutadiene	ND		ug/kg	3.1	--	1
Isopropylbenzene	ND		ug/kg	0.78	--	1
p-Isopropyltoluene	ND		ug/kg	0.78	--	1
Naphthalene	ND		ug/kg	3.1	--	1
n-Propylbenzene	ND		ug/kg	0.78	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

**Lab ID:** L2267824-01  
**Client ID:** SH-GP-306 (6)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/02/22 08:15  
**Date Received:** 12/02/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	--	1
Diethyl ether	ND		ug/kg	1.6	--	1
Diisopropyl Ether	ND		ug/kg	1.6	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.6	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.6	--	1
1,4-Dioxane	ND		ug/kg	63	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	102		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

Lab ID: L2267824-04  
 Client ID: SH-GP-308 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 09:40  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/07/22 13:53  
 Analyst: AJK  
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	3.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.77	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.77	--	1
1,2-Dichloropropane	ND		ug/kg	0.77	--	1
Dibromochloromethane	ND		ug/kg	0.77	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.77	--	1
Tetrachloroethene	ND		ug/kg	0.39	--	1
Chlorobenzene	ND		ug/kg	0.39	--	1
Trichlorofluoromethane	ND		ug/kg	3.1	--	1
1,2-Dichloroethane	ND		ug/kg	0.77	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.39	--	1
Bromodichloromethane	ND		ug/kg	0.39	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.77	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.39	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.39	--	1
1,1-Dichloropropene	ND		ug/kg	0.39	--	1
Bromoform	ND		ug/kg	3.1	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Benzene	ND		ug/kg	0.39	--	1
Toluene	ND		ug/kg	0.77	--	1
Ethylbenzene	ND		ug/kg	0.77	--	1
Chloromethane	ND		ug/kg	3.1	--	1
Bromomethane	ND		ug/kg	1.5	--	1
Vinyl chloride	ND		ug/kg	0.77	--	1
Chloroethane	ND		ug/kg	1.5	--	1
1,1-Dichloroethene	ND		ug/kg	0.77	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

**Lab ID:** L2267824-04  
**Client ID:** SH-GP-308 (3)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/02/22 09:40  
**Date Received:** 12/02/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	0.48		ug/kg	0.39	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.5	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.5	--	1
Methyl tert butyl ether	ND		ug/kg	1.5	--	1
p/m-Xylene	ND		ug/kg	1.5	--	1
o-Xylene	ND		ug/kg	0.77	--	1
Xylenes, Total	ND		ug/kg	0.77	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.77	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.77	--	1
Dibromomethane	ND		ug/kg	1.5	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.5	--	1
Styrene	ND		ug/kg	0.77	--	1
Dichlorodifluoromethane	ND		ug/kg	7.7	--	1
Acetone	ND		ug/kg	19	--	1
Carbon disulfide	ND		ug/kg	7.7	--	1
Methyl ethyl ketone	ND		ug/kg	7.7	--	1
Methyl isobutyl ketone	ND		ug/kg	7.7	--	1
2-Hexanone	ND		ug/kg	7.7	--	1
Bromochloromethane	ND		ug/kg	1.5	--	1
Tetrahydrofuran	ND		ug/kg	3.1	--	1
2,2-Dichloropropane	ND		ug/kg	1.5	--	1
1,2-Dibromoethane	ND		ug/kg	0.77	--	1
1,3-Dichloropropane	ND		ug/kg	1.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Bromobenzene	ND		ug/kg	1.5	--	1
n-Butylbenzene	ND		ug/kg	0.77	--	1
sec-Butylbenzene	ND		ug/kg	0.77	--	1
tert-Butylbenzene	ND		ug/kg	1.5	--	1
o-Chlorotoluene	ND		ug/kg	1.5	--	1
p-Chlorotoluene	ND		ug/kg	1.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.3	--	1
Hexachlorobutadiene	ND		ug/kg	3.1	--	1
Isopropylbenzene	ND		ug/kg	0.77	--	1
p-Isopropyltoluene	ND		ug/kg	0.77	--	1
Naphthalene	ND		ug/kg	3.1	--	1
n-Propylbenzene	ND		ug/kg	0.77	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

**Lab ID:** L2267824-04  
**Client ID:** SH-GP-308 (3)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/02/22 09:40  
**Date Received:** 12/02/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.5	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.5	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.5	--	1
Diethyl ether	ND		ug/kg	1.5	--	1
Diisopropyl Ether	ND		ug/kg	1.5	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.5	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.5	--	1
1,4-Dioxane	ND		ug/kg	62	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	119		70-130
Dibromofluoromethane	97		70-130



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

Lab ID: L2267824-07  
 Client ID: SH-GP-310 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:15  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/08/22 16:52  
 Analyst: JIC  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.4	--	1
1,1-Dichloroethane	ND		ug/kg	0.87	--	1
Chloroform	ND		ug/kg	1.3	--	1
Carbon tetrachloride	ND		ug/kg	0.87	--	1
1,2-Dichloropropane	ND		ug/kg	0.87	--	1
Dibromochloromethane	ND		ug/kg	0.87	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.87	--	1
Tetrachloroethene	0.50		ug/kg	0.44	--	1
Chlorobenzene	ND		ug/kg	0.44	--	1
Trichlorofluoromethane	ND		ug/kg	3.5	--	1
1,2-Dichloroethane	ND		ug/kg	0.87	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	--	1
Bromodichloromethane	ND		ug/kg	0.44	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.87	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	--	1
1,1-Dichloropropene	ND		ug/kg	0.44	--	1
Bromoform	ND		ug/kg	3.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	--	1
Benzene	ND		ug/kg	0.44	--	1
Toluene	ND		ug/kg	0.87	--	1
Ethylbenzene	ND		ug/kg	0.87	--	1
Chloromethane	ND		ug/kg	3.5	--	1
Bromomethane	ND		ug/kg	1.7	--	1
Vinyl chloride	ND		ug/kg	0.87	--	1
Chloroethane	ND		ug/kg	1.7	--	1
1,1-Dichloroethene	ND		ug/kg	0.87	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-07  
 Client ID: SH-GP-310 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:15  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	4.0		ug/kg	0.44	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.7	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.7	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.7	--	1
Methyl tert butyl ether	ND		ug/kg	1.7	--	1
p/m-Xylene	ND		ug/kg	1.7	--	1
o-Xylene	ND		ug/kg	0.87	--	1
Xylenes, Total	ND		ug/kg	0.87	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.87	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.87	--	1
Dibromomethane	ND		ug/kg	1.7	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.7	--	1
Styrene	ND		ug/kg	0.87	--	1
Dichlorodifluoromethane	ND		ug/kg	8.7	--	1
Acetone	31		ug/kg	22	--	1
Carbon disulfide	ND		ug/kg	8.7	--	1
Methyl ethyl ketone	ND		ug/kg	8.7	--	1
Methyl isobutyl ketone	ND		ug/kg	8.7	--	1
2-Hexanone	ND		ug/kg	8.7	--	1
Bromochloromethane	ND		ug/kg	1.7	--	1
Tetrahydrofuran	ND		ug/kg	3.5	--	1
2,2-Dichloropropane	ND		ug/kg	1.7	--	1
1,2-Dibromoethane	ND		ug/kg	0.87	--	1
1,3-Dichloropropane	ND		ug/kg	1.7	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.44	--	1
Bromobenzene	ND		ug/kg	1.7	--	1
n-Butylbenzene	ND		ug/kg	0.87	--	1
sec-Butylbenzene	ND		ug/kg	0.87	--	1
tert-Butylbenzene	ND		ug/kg	1.7	--	1
o-Chlorotoluene	ND		ug/kg	1.7	--	1
p-Chlorotoluene	ND		ug/kg	1.7	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	--	1
Hexachlorobutadiene	ND		ug/kg	3.5	--	1
Isopropylbenzene	ND		ug/kg	0.87	--	1
p-Isopropyltoluene	ND		ug/kg	0.87	--	1
Naphthalene	ND		ug/kg	3.5	--	1
n-Propylbenzene	ND		ug/kg	0.87	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

**SAMPLE RESULTS**

Lab ID: L2267824-07  
 Client ID: SH-GP-310 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:15  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.7	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.7	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.7	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.7	--	1
Diethyl ether	ND		ug/kg	1.7	--	1
Diisopropyl Ether	ND		ug/kg	1.7	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.7	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.7	--	1
1,4-Dioxane	ND		ug/kg	70	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	66	Q	70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

Lab ID: L2267824-10  
 Client ID: SH-GP-309 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:30  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/08/22 16:26  
 Analyst: JIC  
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	3.2	--	1
1,1-Dichloroethane	ND		ug/kg	0.64	--	1
Chloroform	ND		ug/kg	0.96	--	1
Carbon tetrachloride	ND		ug/kg	0.64	--	1
1,2-Dichloropropane	ND		ug/kg	0.64	--	1
Dibromochloromethane	ND		ug/kg	0.64	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.64	--	1
Tetrachloroethene	1.6		ug/kg	0.32	--	1
Chlorobenzene	ND		ug/kg	0.32	--	1
Trichlorofluoromethane	ND		ug/kg	2.6	--	1
1,2-Dichloroethane	ND		ug/kg	0.64	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.32	--	1
Bromodichloromethane	ND		ug/kg	0.32	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.64	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.32	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.32	--	1
1,1-Dichloropropene	ND		ug/kg	0.32	--	1
Bromoform	ND		ug/kg	2.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.32	--	1
Benzene	ND		ug/kg	0.32	--	1
Toluene	ND		ug/kg	0.64	--	1
Ethylbenzene	ND		ug/kg	0.64	--	1
Chloromethane	ND		ug/kg	2.6	--	1
Bromomethane	ND		ug/kg	1.3	--	1
Vinyl chloride	ND		ug/kg	0.64	--	1
Chloroethane	ND		ug/kg	1.3	--	1
1,1-Dichloroethene	ND		ug/kg	0.64	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.96	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

Lab ID: L2267824-10  
 Client ID: SH-GP-309 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:30  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	1.1		ug/kg	0.32	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.3	--	1
Methyl tert butyl ether	ND		ug/kg	1.3	--	1
p/m-Xylene	ND		ug/kg	1.3	--	1
o-Xylene	ND		ug/kg	0.64	--	1
Xylenes, Total	ND		ug/kg	0.64	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.64	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.64	--	1
Dibromomethane	ND		ug/kg	1.3	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.3	--	1
Styrene	ND		ug/kg	0.64	--	1
Dichlorodifluoromethane	ND		ug/kg	6.4	--	1
Acetone	ND		ug/kg	16	--	1
Carbon disulfide	ND		ug/kg	6.4	--	1
Methyl ethyl ketone	ND		ug/kg	6.4	--	1
Methyl isobutyl ketone	ND		ug/kg	6.4	--	1
2-Hexanone	ND		ug/kg	6.4	--	1
Bromochloromethane	ND		ug/kg	1.3	--	1
Tetrahydrofuran	ND		ug/kg	2.6	--	1
2,2-Dichloropropane	ND		ug/kg	1.3	--	1
1,2-Dibromoethane	ND		ug/kg	0.64	--	1
1,3-Dichloropropane	ND		ug/kg	1.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.32	--	1
Bromobenzene	ND		ug/kg	1.3	--	1
n-Butylbenzene	ND		ug/kg	0.64	--	1
sec-Butylbenzene	ND		ug/kg	0.64	--	1
tert-Butylbenzene	ND		ug/kg	1.3	--	1
o-Chlorotoluene	ND		ug/kg	1.3	--	1
p-Chlorotoluene	ND		ug/kg	1.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.9	--	1
Hexachlorobutadiene	ND		ug/kg	2.6	--	1
Isopropylbenzene	ND		ug/kg	0.64	--	1
p-Isopropyltoluene	ND		ug/kg	0.64	--	1
Naphthalene	ND		ug/kg	2.6	--	1
n-Propylbenzene	ND		ug/kg	0.64	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

**Lab ID:** L2267824-10  
**Client ID:** SH-GP-309 (3)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/02/22 11:30  
**Date Received:** 12/02/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.3	--	1
Diethyl ether	ND		ug/kg	1.3	--	1
Diisopropyl Ether	ND		ug/kg	1.3	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.3	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.3	--	1
1,4-Dioxane	ND		ug/kg	51	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

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

Analytical Method: 141,8260D  
Analytical Date: 12/07/22 11:56  
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04 Batch: WG1720808-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

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

Analytical Method: 141,8260D  
Analytical Date: 12/07/22 11:56  
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04 Batch: WG1720808-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 12/07/22 11:56  
Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04 Batch: WG1720808-5					
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
Diethyl ether	ND		ug/kg	2.0	--
Diisopropyl Ether	ND		ug/kg	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

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

Analytical Method: 141,8260D  
Analytical Date: 12/08/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07,10 Batch: WG1721378-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 12/08/22 09:05  
Analyst: NLK

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07,10 Batch: WG1721378-5</b>					
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 12/08/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07,10 Batch: WG1721378-5</b>					
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
Diethyl ether	ND		ug/kg	2.0	--
Diisopropyl Ether	ND		ug/kg	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	96		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1720808-3 WG1720808-4								
Methylene chloride	87		86		70-130	1		20
1,1-Dichloroethane	92		91		70-130	1		20
Chloroform	89		90		70-130	1		20
Carbon tetrachloride	96		94		70-130	2		20
1,2-Dichloropropane	97		96		70-130	1		20
Dibromochloromethane	98		93		70-130	5		20
1,1,2-Trichloroethane	96		91		70-130	5		20
Tetrachloroethene	102		97		70-130	5		20
Chlorobenzene	97		93		70-130	4		20
Trichlorofluoromethane	95		93		70-130	2		20
1,2-Dichloroethane	92		91		70-130	1		20
1,1,1-Trichloroethane	93		90		70-130	3		20
Bromodichloromethane	91		90		70-130	1		20
trans-1,3-Dichloropropene	103		97		70-130	6		20
cis-1,3-Dichloropropene	99		97		70-130	2		20
1,1-Dichloropropene	103		102		70-130	1		20
Bromoform	94		83		70-130	12		20
1,1,2,2-Tetrachloroethane	94		81		70-130	15		20
Benzene	96		95		70-130	1		20
Toluene	102		98		70-130	4		20
Ethylbenzene	103		99		70-130	4		20
Chloromethane	79		79		70-130	0		20
Bromomethane	106		103		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1720808-3 WG1720808-4								
Vinyl chloride	93		90		70-130	3		20
Chloroethane	89		86		70-130	3		20
1,1-Dichloroethene	90		89		70-130	1		20
trans-1,2-Dichloroethene	90		89		70-130	1		20
Trichloroethene	101		103		70-130	2		20
1,2-Dichlorobenzene	98		88		70-130	11		20
1,3-Dichlorobenzene	99		91		70-130	8		20
1,4-Dichlorobenzene	99		89		70-130	11		20
Methyl tert butyl ether	97		97		70-130	0		20
p/m-Xylene	101		97		70-130	4		20
o-Xylene	99		96		70-130	3		20
cis-1,2-Dichloroethene	90		89		70-130	1		20
Dibromomethane	90		88		70-130	2		20
1,2,3-Trichloropropane	98		88		70-130	11		20
Styrene	98		95		70-130	3		20
Dichlorodifluoromethane	96		95		70-130	1		20
Acetone	106		100		70-130	6		20
Carbon disulfide	91		90		70-130	1		20
Methyl ethyl ketone	85		82		70-130	4		20
Methyl isobutyl ketone	92		85		70-130	8		20
2-Hexanone	88		84		70-130	5		20
Bromochloromethane	87		85		70-130	2		20
Tetrahydrofuran	83		82		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1720808-3 WG1720808-4								
2,2-Dichloropropane	92		90		70-130	2		20
1,2-Dibromoethane	99		94		70-130	5		20
1,3-Dichloropropane	100		96		70-130	4		20
1,1,1,2-Tetrachloroethane	100		95		70-130	5		20
Bromobenzene	97		87		70-130	11		20
n-Butylbenzene	111		101		70-130	9		20
sec-Butylbenzene	111		102		70-130	8		20
tert-Butylbenzene	108		98		70-130	10		20
o-Chlorotoluene	106		97		70-130	9		20
p-Chlorotoluene	106		98		70-130	8		20
1,2-Dibromo-3-chloropropane	90		81		70-130	11		20
Hexachlorobutadiene	99		91		70-130	8		20
Isopropylbenzene	109		100		70-130	9		20
p-Isopropyltoluene	108		99		70-130	9		20
Naphthalene	95		85		70-130	11		20
n-Propylbenzene	111		102		70-130	8		20
1,2,3-Trichlorobenzene	93		84		70-130	10		20
1,2,4-Trichlorobenzene	95		85		70-130	11		20
1,3,5-Trimethylbenzene	109		100		70-130	9		20
1,2,4-Trimethylbenzene	106		97		70-130	9		20
Diethyl ether	85		85		70-130	0		20
Diisopropyl Ether	96		95		70-130	1		20
Ethyl-Tert-Butyl-Ether	98		97		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1720808-3 WG1720808-4								
Tertiary-Amyl Methyl Ether	97		95		70-130	2		20
1,4-Dioxane	104		100		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		97		70-130
Toluene-d8	110		108		70-130
4-Bromofluorobenzene	111		108		70-130
Dibromofluoromethane	94		93		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
Methylene chloride	87		87		70-130	0		20
1,1-Dichloroethane	93		92		70-130	1		20
Chloroform	92		91		70-130	1		20
Carbon tetrachloride	99		100		70-130	1		20
1,2-Dichloropropane	89		88		70-130	1		20
Dibromochloromethane	93		93		70-130	0		20
1,1,2-Trichloroethane	84		84		70-130	0		20
Tetrachloroethene	102		101		70-130	1		20
Chlorobenzene	94		94		70-130	0		20
Trichlorofluoromethane	115		115		70-130	0		20
1,2-Dichloroethane	92		92		70-130	0		20
1,1,1-Trichloroethane	98		97		70-130	1		20
Bromodichloromethane	92		92		70-130	0		20
trans-1,3-Dichloropropene	92		92		70-130	0		20
cis-1,3-Dichloropropene	93		92		70-130	1		20
1,1-Dichloropropene	101		101		70-130	0		20
Bromoform	89		89		70-130	0		20
1,1,2,2-Tetrachloroethane	83		83		70-130	0		20
Benzene	94		93		70-130	1		20
Toluene	92		91		70-130	1		20
Ethylbenzene	94		93		70-130	1		20
Chloromethane	85		84		70-130	1		20
Bromomethane	117		116		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
Vinyl chloride	104		101		70-130	3		20
Chloroethane	107		105		70-130	2		20
1,1-Dichloroethene	98		96		70-130	2		20
trans-1,2-Dichloroethene	92		93		70-130	1		20
Trichloroethene	94		95		70-130	1		20
1,2-Dichlorobenzene	92		92		70-130	0		20
1,3-Dichlorobenzene	93		92		70-130	1		20
1,4-Dichlorobenzene	92		92		70-130	0		20
Methyl tert butyl ether	92		92		70-130	0		20
p/m-Xylene	97		96		70-130	1		20
o-Xylene	96		95		70-130	1		20
cis-1,2-Dichloroethene	91		89		70-130	2		20
Dibromomethane	91		91		70-130	0		20
1,2,3-Trichloropropane	87		87		70-130	0		20
Styrene	94		93		70-130	1		20
Dichlorodifluoromethane	102		100		70-130	2		20
Acetone	84		83		70-130	1		20
Carbon disulfide	95		93		70-130	2		20
Methyl ethyl ketone	78		79		70-130	1		20
Methyl isobutyl ketone	74		75		70-130	1		20
2-Hexanone	78		79		70-130	1		20
Bromochloromethane	94		95		70-130	1		20
Tetrahydrofuran	80		80		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
2,2-Dichloropropane	99		97		70-130	2		20
1,2-Dibromoethane	91		91		70-130	0		20
1,3-Dichloropropane	91		91		70-130	0		20
1,1,1,2-Tetrachloroethane	95		94		70-130	1		20
Bromobenzene	87		87		70-130	0		20
n-Butylbenzene	97		96		70-130	1		20
sec-Butylbenzene	95		95		70-130	0		20
tert-Butylbenzene	93		92		70-130	1		20
o-Chlorotoluene	89		89		70-130	0		20
p-Chlorotoluene	90		90		70-130	0		20
1,2-Dibromo-3-chloropropane	88		89		70-130	1		20
Hexachlorobutadiene	96		95		70-130	1		20
Isopropylbenzene	92		92		70-130	0		20
p-Isopropyltoluene	95		95		70-130	0		20
Naphthalene	91		92		70-130	1		20
n-Propylbenzene	93		93		70-130	0		20
1,2,3-Trichlorobenzene	94		94		70-130	0		20
1,2,4-Trichlorobenzene	96		95		70-130	1		20
1,3,5-Trimethylbenzene	92		92		70-130	0		20
1,2,4-Trimethylbenzene	92		92		70-130	0		20
Diethyl ether	92		92		70-130	0		20
Diisopropyl Ether	87		86		70-130	1		20
Ethyl-Tert-Butyl-Ether	91		90		70-130	1		20

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
Tertiary-Amyl Methyl Ether	92		92		70-130	0		20
1,4-Dioxane	85		85		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	98		97		70-130

# PETROLEUM HYDROCARBONS

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-02  
 Client ID: SH-GP-306 (10-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 08:30  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 12/07/22 00:04  
 Analyst: MEO  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 12/03/22 20:38  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 12/05/22

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	7.09	--	1
C19-C36 Aliphatics	ND		mg/kg	7.09	--	1
C11-C22 Aromatics	ND		mg/kg	7.09	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.09	--	1
Naphthalene	ND		mg/kg	0.354	--	1
2-Methylnaphthalene	ND		mg/kg	0.354	--	1
Acenaphthylene	ND		mg/kg	0.354	--	1
Acenaphthene	ND		mg/kg	0.354	--	1
Fluorene	ND		mg/kg	0.354	--	1
Phenanthrene	ND		mg/kg	0.354	--	1
Anthracene	ND		mg/kg	0.354	--	1
Fluoranthene	ND		mg/kg	0.354	--	1
Pyrene	ND		mg/kg	0.354	--	1
Benzo(a)anthracene	ND		mg/kg	0.354	--	1
Chrysene	ND		mg/kg	0.354	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.354	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.354	--	1
Benzo(a)pyrene	ND		mg/kg	0.354	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.354	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.354	--	1
Benzo(ghi)perylene	ND		mg/kg	0.354	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-02  
 Client ID: SH-GP-306 (10-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 08:30  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	62		40-140
o-Terphenyl	50		40-140
2-Fluorobiphenyl	65		40-140
2-Bromonaphthalene	65		40-140

Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-03  
 Client ID: SH-GP-306 (12)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 08:35  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 12/07/22 14:47  
 Analyst: BAD  
 Percent Solids: 89%

Trap: EST, Carbo-pack B/Carboxen 1000&amp;1001

Analytical Column: Restek, RTX-502.2, 105m, 0.53ID, 3um

## Quality Control Information

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Were samples received in methanol? Covering the Soil  
 Methanol ratio: 1:1.6

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		mg/kg	4.11	--	1
C9-C12 Aliphatics	ND		mg/kg	4.11	--	1
C9-C10 Aromatics	ND		mg/kg	4.11	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	4.11	--	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	4.11	--	1
Benzene	ND		mg/kg	0.082	--	1
Toluene	ND		mg/kg	0.082	--	1
Ethylbenzene	ND		mg/kg	0.082	--	1
p/m-Xylene	ND		mg/kg	0.082	--	1
o-Xylene	ND		mg/kg	0.082	--	1
Methyl tert butyl ether	ND		mg/kg	0.041	--	1
Naphthalene	ND		mg/kg	0.164	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	102		70-130
2,5-Dibromotoluene-FID	108		70-130



Project Name: 776 SUMMER ST.

Lab Number: L2267824

Project Number: 4867.02

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-05  
 Client ID: SH-GP-308 (12)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:05  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 12/07/22 15:18  
 Analyst: BAD  
 Percent Solids: 94%

Trap: EST, Carbo-pack B/Carboxen 1000&amp;1001

Analytical Column: Restek, RTX-502.2, 105m, 0.53ID, 3um

## Quality Control Information

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Were samples received in methanol? Covering the Soil  
 Methanol ratio: 1:1.6

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		mg/kg	3.57	--	1
C9-C12 Aliphatics	ND		mg/kg	3.57	--	1
C9-C10 Aromatics	ND		mg/kg	3.57	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	3.57	--	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	3.57	--	1
Benzene	ND		mg/kg	0.071	--	1
Toluene	ND		mg/kg	0.071	--	1
Ethylbenzene	ND		mg/kg	0.071	--	1
p/m-Xylene	ND		mg/kg	0.071	--	1
o-Xylene	ND		mg/kg	0.071	--	1
Methyl tert butyl ether	ND		mg/kg	0.036	--	1
Naphthalene	ND		mg/kg	0.143	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	95		70-130
2,5-Dibromotoluene-FID	101		70-130

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-06  
 Client ID: SH-GP-308 (11-13.2)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:10  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 12/06/22 23:39  
 Analyst: MEO  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/03/22 20:38  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 12/05/22

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	7.09	--	1
C19-C36 Aliphatics	ND		mg/kg	7.09	--	1
C11-C22 Aromatics	ND		mg/kg	7.09	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.09	--	1
Naphthalene	ND		mg/kg	0.355	--	1
2-Methylnaphthalene	ND		mg/kg	0.355	--	1
Acenaphthylene	ND		mg/kg	0.355	--	1
Acenaphthene	ND		mg/kg	0.355	--	1
Fluorene	ND		mg/kg	0.355	--	1
Phenanthrene	ND		mg/kg	0.355	--	1
Anthracene	ND		mg/kg	0.355	--	1
Fluoranthene	ND		mg/kg	0.355	--	1
Pyrene	ND		mg/kg	0.355	--	1
Benzo(a)anthracene	ND		mg/kg	0.355	--	1
Chrysene	ND		mg/kg	0.355	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.355	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.355	--	1
Benzo(a)pyrene	ND		mg/kg	0.355	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.355	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.355	--	1
Benzo(ghi)perylene	ND		mg/kg	0.355	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-06  
 Client ID: SH-GP-308 (11-13.2)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:10  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	64		40-140
o-Terphenyl	62		40-140
2-Fluorobiphenyl	72		40-140
2-Bromonaphthalene	73		40-140

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-08  
 Client ID: SH-GP-310 (17.5-20)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:45  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 12/06/22 23:14  
 Analyst: MEO  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 12/03/22 20:38  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 12/05/22

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	7.49	--	1
C19-C36 Aliphatics	ND		mg/kg	7.49	--	1
C11-C22 Aromatics	ND		mg/kg	7.49	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.49	--	1
Naphthalene	ND		mg/kg	0.374	--	1
2-Methylnaphthalene	ND		mg/kg	0.374	--	1
Acenaphthylene	ND		mg/kg	0.374	--	1
Acenaphthene	ND		mg/kg	0.374	--	1
Fluorene	ND		mg/kg	0.374	--	1
Phenanthrene	ND		mg/kg	0.374	--	1
Anthracene	ND		mg/kg	0.374	--	1
Fluoranthene	ND		mg/kg	0.374	--	1
Pyrene	ND		mg/kg	0.374	--	1
Benzo(a)anthracene	ND		mg/kg	0.374	--	1
Chrysene	ND		mg/kg	0.374	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.374	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.374	--	1
Benzo(a)pyrene	ND		mg/kg	0.374	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.374	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.374	--	1
Benzo(ghi)perylene	ND		mg/kg	0.374	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-08  
 Client ID: SH-GP-310 (17.5-20)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:45  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	61		40-140
o-Terphenyl	53		40-140
2-Fluorobiphenyl	68		40-140
2-Bromonaphthalene	69		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

Lab ID: L2267824-09  
 Client ID: SH-GP-310 (19)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:50  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 12/07/22 15:48  
 Analyst: BAD  
 Percent Solids: 88%

Trap: EST, Carbo-pack B/Carboxen 1000&1001

Analytical Column: Restek, RTX-502.2,  
 105m, 0.53ID, 3um

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Were samples received in methanol? Covering the Soil  
 Methanol ratio: 1:2.0

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		mg/kg	3.53	--	1
C9-C12 Aliphatics	ND		mg/kg	3.53	--	1
C9-C10 Aromatics	ND		mg/kg	3.53	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	3.53	--	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	3.53	--	1
Benzene	ND		mg/kg	0.071	--	1
Toluene	ND		mg/kg	0.071	--	1
Ethylbenzene	ND		mg/kg	0.071	--	1
p/m-Xylene	ND		mg/kg	0.071	--	1
o-Xylene	ND		mg/kg	0.071	--	1
Methyl tert butyl ether	ND		mg/kg	0.035	--	1
Naphthalene	ND		mg/kg	0.141	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	111		70-130
2,5-Dibromotoluene-FID	118		70-130

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-11  
 Client ID: SH-GP-309 (10-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:50  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 12/06/22 22:50  
 Analyst: MEO  
 Percent Solids: 89%

Extraction Method: EPA 3546  
 Extraction Date: 12/03/22 20:38  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 12/05/22

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	7.33	--	1
C19-C36 Aliphatics	ND		mg/kg	7.33	--	1
C11-C22 Aromatics	ND		mg/kg	7.33	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.33	--	1
Naphthalene	ND		mg/kg	0.367	--	1
2-Methylnaphthalene	ND		mg/kg	0.367	--	1
Acenaphthylene	ND		mg/kg	0.367	--	1
Acenaphthene	ND		mg/kg	0.367	--	1
Fluorene	ND		mg/kg	0.367	--	1
Phenanthrene	ND		mg/kg	0.367	--	1
Anthracene	ND		mg/kg	0.367	--	1
Fluoranthene	ND		mg/kg	0.367	--	1
Pyrene	ND		mg/kg	0.367	--	1
Benzo(a)anthracene	ND		mg/kg	0.367	--	1
Chrysene	ND		mg/kg	0.367	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.367	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.367	--	1
Benzo(a)pyrene	ND		mg/kg	0.367	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.367	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.367	--	1
Benzo(ghi)perylene	ND		mg/kg	0.367	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-11  
 Client ID: SH-GP-309 (10-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:50  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	64		40-140
o-Terphenyl	53		40-140
2-Fluorobiphenyl	70		40-140
2-Bromonaphthalene	71		40-140



**Project Name:** 776 SUMMER ST.**Lab Number:** L2267824**Project Number:** 4867.02**Report Date:** 12/16/22**SAMPLE RESULTS**

Lab ID: L2267824-12  
 Client ID: SH-GP-309 (12.5)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:45  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 12/07/22 16:18  
 Analyst: BAD  
 Percent Solids: 89%

Trap: EST, Carbo-pack B/Carboxen 1000&amp;1001

Analytical Column: Restek, RTX-502.2, 105m, 0.53ID, 3um

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Were samples received in methanol? Covering the Soil  
 Methanol ratio: 1:1.7

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		mg/kg	3.98	--	1
C9-C12 Aliphatics	ND		mg/kg	3.98	--	1
C9-C10 Aromatics	ND		mg/kg	3.98	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	3.98	--	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	3.98	--	1
Benzene	ND		mg/kg	0.080	--	1
Toluene	ND		mg/kg	0.080	--	1
Ethylbenzene	ND		mg/kg	0.080	--	1
p/m-Xylene	ND		mg/kg	0.080	--	1
o-Xylene	ND		mg/kg	0.080	--	1
Methyl tert butyl ether	ND		mg/kg	0.040	--	1
Naphthalene	ND		mg/kg	0.159	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	112		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 12/04/22 13:32  
Analyst: AL

Extraction Method: EPA 3546  
Extraction Date: 12/03/22 02:36  
Cleanup Method: EPH-19-2.1  
Cleanup Date: 12/04/22

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 02,06,08,11 Batch: WG1718852-1					
C9-C18 Aliphatics	ND		mg/kg	6.45	--
C19-C36 Aliphatics	ND		mg/kg	6.45	--
C11-C22 Aromatics	ND		mg/kg	6.45	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.45	--
Naphthalene	ND		mg/kg	0.322	--
2-Methylnaphthalene	ND		mg/kg	0.322	--
Acenaphthylene	ND		mg/kg	0.322	--
Acenaphthene	ND		mg/kg	0.322	--
Fluorene	ND		mg/kg	0.322	--
Phenanthrene	ND		mg/kg	0.322	--
Anthracene	ND		mg/kg	0.322	--
Fluoranthene	ND		mg/kg	0.322	--
Pyrene	ND		mg/kg	0.322	--
Benzo(a)anthracene	ND		mg/kg	0.322	--
Chrysene	ND		mg/kg	0.322	--
Benzo(b)fluoranthene	ND		mg/kg	0.322	--
Benzo(k)fluoranthene	ND		mg/kg	0.322	--
Benzo(a)pyrene	ND		mg/kg	0.322	--
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.322	--
Dibenzo(a,h)anthracene	ND		mg/kg	0.322	--
Benzo(ghi)perylene	ND		mg/kg	0.322	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 12/04/22 13:32  
Analyst: AL

Extraction Method: EPA 3546  
Extraction Date: 12/03/22 02:36  
Cleanup Method: EPH-19-2.1  
Cleanup Date: 12/04/22

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 02,06,08,11 Batch: WG1718852-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	58		40-140
o-Terphenyl	50		40-140
2-Fluorobiphenyl	67		40-140
2-Bromonaphthalene	65		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

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

Analytical Method: 131, VPH-18-2.1  
Analytical Date: 12/07/22 12:07  
Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 03,05,09,12 Batch: WG1720956-4					
C5-C8 Aliphatics	ND		mg/kg	5.00	--
C9-C12 Aliphatics	ND		mg/kg	5.00	--
C9-C10 Aromatics	ND		mg/kg	5.00	--
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.00	--
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5.00	--
Benzene	ND		mg/kg	0.100	--
Toluene	ND		mg/kg	0.100	--
Ethylbenzene	ND		mg/kg	0.100	--
p/m-Xylene	ND		mg/kg	0.100	--
o-Xylene	ND		mg/kg	0.100	--
Methyl tert butyl ether	ND		mg/kg	0.050	--
Naphthalene	ND		mg/kg	0.200	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	98		70-130
2,5-Dibromotoluene-FID	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,06,08,11 Batch: WG1718852-2 WG1718852-3								
C9-C18 Aliphatics	55		52		40-140	6		25
C19-C36 Aliphatics	71		67		40-140	6		25
C11-C22 Aromatics	61		58		40-140	5		25
Naphthalene	61		57		40-140	7		25
2-Methylnaphthalene	61		57		40-140	7		25
Acenaphthylene	59		56		40-140	5		25
Acenaphthene	60		57		40-140	5		25
Fluorene	59		56		40-140	5		25
Phenanthrene	57		55		40-140	4		25
Anthracene	58		56		40-140	4		25
Fluoranthene	58		57		40-140	2		25
Pyrene	58		57		40-140	2		25
Benzo(a)anthracene	57		57		40-140	0		25
Chrysene	57		56		40-140	2		25
Benzo(b)fluoranthene	56		55		40-140	2		25
Benzo(k)fluoranthene	54		52		40-140	4		25
Benzo(a)pyrene	58		57		40-140	2		25
Indeno(1,2,3-cd)Pyrene	56		55		40-140	2		25
Dibenzo(a,h)anthracene	56		56		40-140	0		25
Benzo(ghi)perylene	52		52		40-140	0		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,06,08,11 Batch: WG1718852-2 WG1718852-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Chloro-Octadecane	63		59		40-140
o-Terphenyl	55		52		40-140
2-Fluorobiphenyl	71		69		40-140
2-Bromonaphthalene	69		68		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

## Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 03,05,09,12 Batch: WG1720956-2 WG1720956-3								
C5-C8 Aliphatics	109		107		70-130	2		25
C9-C12 Aliphatics	121		118		70-130	3		25
C9-C10 Aromatics	114		112		70-130	2		25
Benzene	116		114		70-130	2		25
Toluene	115		113		70-130	2		25
Ethylbenzene	116		114		70-130	2		25
p/m-Xylene	115		113		70-130	2		25
o-Xylene	113		111		70-130	2		25
Methyl tert butyl ether	109		107		70-130	2		25
Naphthalene	113		108		70-130	5		25
1,2,4-Trimethylbenzene	114		112		70-130	2		25
Pentane	90		88		70-130	2		25
2-Methylpentane	114		109		70-130	4		25
2,2,4-Trimethylpentane	120		118		70-130	2		25
n-Nonane	121		117		30-130	3		25
n-Decane	120		118		70-130	2		25
n-Butylcyclohexane	120		118		70-130	2		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,5-Dibromotoluene-PID	109		105		70-130
2,5-Dibromotoluene-FID	114		112		70-130

# **INORGANICS & MISCELLANEOUS**



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

**Lab ID:** L2267824-01  
**Client ID:** SH-GP-306 (6)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/02/22 08:15  
**Date Received:** 12/02/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	86.6		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-02

Client ID: SH-GP-306 (10-15)

Sample Location: BOSTON, MA

Date Collected: 12/02/22 08:30

Date Received: 12/02/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.6		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-03

Client ID: SH-GP-306 (12)

Sample Location: BOSTON, MA

Date Collected: 12/02/22 08:35

Date Received: 12/02/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.2		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-04  
 Client ID: SH-GP-308 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 09:40  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.5		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-05

Client ID: SH-GP-308 (12)

Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:05

Date Received: 12/02/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.0		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-06

Client ID: SH-GP-308 (11-13.2)

Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:10

Date Received: 12/02/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.6		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-07  
 Client ID: SH-GP-310 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:15  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.7		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

**SAMPLE RESULTS**

**Lab ID:** L2267824-08  
**Client ID:** SH-GP-310 (17.5-20)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/02/22 10:45  
**Date Received:** 12/02/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	87.0		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI





Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-09

Client ID: SH-GP-310 (19)

Sample Location: BOSTON, MA

Date Collected: 12/02/22 10:50

Date Received: 12/02/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.9		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-10

Client ID: SH-GP-309 (3)

Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:30

Date Received: 12/02/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.0		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-11  
 Client ID: SH-GP-309 (10-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:50  
 Date Received: 12/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.4		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

## SAMPLE RESULTS

Lab ID: L2267824-12

Client ID: SH-GP-309 (12.5)

Sample Location: BOSTON, MA

Date Collected: 12/02/22 11:45

Date Received: 12/02/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.8		%	0.100	NA	1	-	12/03/22 10:45	121,2540G	RI



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2267824

Report Date: 12/16/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-12 QC Batch ID: WG1718913-1 QC Sample: L2267824-01 Client ID: SH-GP-306 (6)						
Solids, Total	86.6	86.8	%	0		20

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

Serial\_No:12162208:57  
**Lab Number:** L2267824  
**Report Date:** 12/16/22

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

**Cooler**                      **Custody Seal**  
A                                      Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2267824-01A	Vial MeOH preserved	A	NA		5.1	Y	Absent		MCP-8260HLW-21(14)
L2267824-01B	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-01C	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-01D	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)
L2267824-02A	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		EPH-DELUX-20(14),TS(7)
L2267824-03A	Vial MeOH preserved	A	NA		5.1	Y	Absent		VPH-DELUX-18(28)
L2267824-03B	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	HOLD-8260HLW(14)
L2267824-03C	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	HOLD-8260HLW(14)
L2267824-03D	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)
L2267824-04A	Vial MeOH preserved	A	NA		5.1	Y	Absent		MCP-8260HLW-21(14)
L2267824-04B	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-04C	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-04D	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)
L2267824-05A	Vial MeOH preserved	A	NA		5.1	Y	Absent		VPH-DELUX-18(28)
L2267824-05B	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)
L2267824-06A	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		EPH-DELUX-20(14),TS(7)
L2267824-07A	Vial MeOH preserved	A	NA		5.1	Y	Absent		MCP-8260HLW-21(14)
L2267824-07B	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-07C	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-07D	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)
L2267824-08A	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		EPH-DELUX-20(14),TS(7)
L2267824-09A	Vial MeOH preserved	A	NA		5.1	Y	Absent		VPH-DELUX-18(28)
L2267824-09B	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)

\*Values in parentheses indicate holding time in days



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

Serial\_No:12162208:57  
**Lab Number:** L2267824  
**Report Date:** 12/16/22

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2267824-10A	Vial MeOH preserved	A	NA		5.1	Y	Absent		MCP-8260HLW-21(14)
L2267824-10B	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-10C	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	MCP-8260HLW-21(14)
L2267824-10D	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)
L2267824-11A	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		EPH-DELUX-20(14),TS(7)
L2267824-12A	Vial MeOH preserved	A	NA		5.1	Y	Absent		VPH-DELUX-18(28)
L2267824-12B	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		TS(7)
L2267824-13A	Vial MeOH preserved	A	NA		5.1	Y	Absent		HOLD-8260HLW(14)
L2267824-13B	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	HOLD-8260HLW(14)
L2267824-13C	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	HOLD-8260HLW(14)
L2267824-13D	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		HOLD-WETCHEM()
L2267824-14A	Vial MeOH preserved	A	NA		5.1	Y	Absent		HOLD-8260HLW(14)
L2267824-14B	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	HOLD-8260HLW(14)
L2267824-14C	Vial water preserved	A	NA		5.1	Y	Absent	02-DEC-22 21:52	HOLD-8260HLW(14)
L2267824-14D	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		HOLD-WETCHEM()
L2267824-15A	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		HOLD-EPH(14),HOLD-WETCHEM()
L2267824-16A	Vial MeOH preserved	A	NA		5.1	Y	Absent		HOLD-VPH(28)
L2267824-16B	Plastic 2oz unpreserved for TS	A	NA		5.1	Y	Absent		HOLD-WETCHEM()

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

### Footnotes

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

### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

#### **Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2267824  
**Report Date:** 12/16/22

## REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.
- 135 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, December 2019, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, March 1, 2020.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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**

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



# CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 12/2/22

ALPHA Job #: L2267824

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

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

## Project Information

Project Name: 776 Summer  
Project Location: Boston, MA  
Project #: 4867.02  
Project Manager: A. Cohen  
ALPHA Quote #:

## Report Information - Data Deliverables

ADEx  EMAIL

## Billing Information

Same as Client info PO #:

## Client Information

Client: Sanbornhead  
Address: 98 North Washington St.  
Boston, MA  
Phone: 857-327-9736  
Email: A.cohen@sanbornhead.com  
S.Lamare@sanbornhead.com  
Additional Project Information:  
HCHILD@sanbornhead.com

## Turn-Around Time

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

## Regulatory Requirements & Project Information Requirements

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

ANALYSIS	VOC: <input checked="" type="checkbox"/> 6260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SAMPLE INFO
	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCR45 <input type="checkbox"/> RCR48 <input type="checkbox"/> PPI3	Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do
	EPH: <input checked="" type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	
VPH: <input checked="" type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> PCB <input type="checkbox"/> PEST	Preservation <input type="checkbox"/> Lab to do
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
Sample Comments		TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
67824 01	SH-306 (6)	12/2/22	815	SB	SmL
02	SH-306 (10-15)	↓	830	↓	↓
03	SH-306 (12)		835		
04	SH-308 (3)		940		
05	SH-308 (12)		1005		
06	SH-308 (11-13,2)		1010		
07	SH-310 (6)		1015		
08	SH-310 (17.5-20)		1045		
09	SH-310 (19)		1050		
10	SH-309 (3)		1130		

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

**Preservative**  
A= None  
B= HCl  
C= HNO<sub>3</sub>  
D= H<sub>2</sub>SO<sub>4</sub>  
E= NaOH  
F= MeOH  
G= NaHSO<sub>4</sub>  
H= Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
J= Ascorbic Acid  
I= NH<sub>4</sub>Cl  
K= Zn Acetate  
O= Other

Container Type	V	AV
Preservative	B	AB

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	12/2/22	<i>[Signature]</i>	12/2/22 15:52
<i>[Signature]</i>	12/2/22 17:25	<i>[Signature]</i>	12/2/22 17:15

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



# Method Blank Summary

## Form 4

### Volatiles

Client : Sanborn, Head & Associates, Inc.      Lab Number : L2267824  
Project Name : 776 SUMMER ST.      Project Number : 4867.02  
Lab Sample ID : WG1720808-5      Lab File ID : V31221207A05  
Instrument ID : VOA131  
Matrix : SOIL      Analysis Date : 12/07/22 11:56

Client Sample No.	Lab Sample ID	Analysis Date
WG1720808-3LCS	WG1720808-3	12/07/22 10:46
WG1720808-4LCSD	WG1720808-4	12/07/22 11:10
SH-GP-306 (6)	L2267824-01	12/07/22 13:30
SH-GP-308 (3)	L2267824-04	12/07/22 13:53

# Method Blank Summary

## Form 4

### Volatiles

Client : Sanborn, Head & Associates, Inc.      Lab Number : L2267824  
Project Name : 776 SUMMER ST.      Project Number : 4867.02  
Lab Sample ID : WG1721378-5      Lab File ID : V00221208A05  
Instrument ID : VOA100  
Matrix : SOIL      Analysis Date : 12/08/22 09:05

Client Sample No.	Lab Sample ID	Analysis Date
WG1721378-3LCS	WG1721378-3	12/08/22 07:47
WG1721378-4LCSD	WG1721378-4	12/08/22 08:13
SH-GP-309 (3)	L2267824-10	12/08/22 16:26
SH-GP-310 (6)	L2267824-07	12/08/22 16:52



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA131  
 Lab File ID : V31221207A01  
 Sample No : WG1720808-2  
 Channel :

Lab Number : L2267824  
 Project Number : 4867.02  
 Calibration Date : 12/07/22 10:23  
 Init. Calib. Date(s) : 11/28/22 11/28/22  
 Init. Calib. Times : 14:00 18:14

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	86	0
Dichlorodifluoromethane	0.241	0.244	-	-1.2	20	83	0
Chloromethane	0.332	0.277	-	16.6	20	76	0
Vinyl chloride	0.358	0.359	-	-0.3	20	83	0
Bromomethane	0.203	0.233	-	-14.8	20	98	0
Chloroethane	0.253	0.256	-	-1.2	20	89	-0.1
Trichlorofluoromethane	0.52	0.532	-	-2.3	20	78	0
Ethyl ether	0.158	0.141	-	10.8	20	75	0
1,1-Dichloroethene	0.255	0.233	-	8.6	20	78	0
Carbon disulfide	0.507	0.473	-	6.7	20	78	0
Freon-113	0.252	0.258	-	-2.4	20	79	0
Acrolein	0.036	0.038	-	-5.6	20	87	0
Methylene chloride	0.308	0.273	-	11.4	20	77	0
Acetone	40	34.936	-	12.7	20	75	-0.2
trans-1,2-Dichloroethene	0.287	0.267	-	7	20	79	0
Methyl acetate	0.174	0.14	-	19.5	20	70	-0.1
Methyl tert-butyl ether	0.627	0.6	-	4.3	20	79	0
tert-Butyl alcohol	200	173.773	-	13.1	20	74	-0.4
Diisopropyl ether	0.732	0.718	-	1.9	20	82	0
1,1-Dichloroethane	0.504	0.478	-	5.2	20	80	0
Halothane	0.214	0.205	-	4.2	20	78	0
Acrylonitrile	0.087	0.073	-	16.1	20	76	-0.1
Ethyl tert-butyl ether	0.767	0.769	-	-0.3	20	83	0
Vinyl acetate	0.473	0.493	-	-4.2	20	87	0
cis-1,2-Dichloroethene	0.326	0.302	-	7.4	20	79	0
2,2-Dichloropropane	0.422	0.408	-	3.3	20	81	0
Bromochloromethane	0.163	0.145	-	11	20	76	0
Cyclohexane	0.428	0.446	-	-4.2	20	83	0
Chloroform	0.539	0.511	-	5.2	20	80	0
Ethyl acetate	0.267	0.219	-	18	20	70	0
Carbon tetrachloride	0.389	0.402	-	-3.3	20	80	0
Tetrahydrofuran	0.083	0.063	-	24.1*	20	69	-0.2
Dibromofluoromethane	0.307	0.279	-	9.1	20	81	0
1,1,1-Trichloroethane	0.435	0.42	-	3.4	20	80	0
2-Butanone	0.134	0.102	-	23.9*	20	67	0
1,1-Dichloropropene	0.323	0.347	-	-7.4	20	83	0
Benzene	1.012	1.028	-	-1.6	20	84	0
tert-Amyl methyl ether	0.701	0.698	-	0.4	20	84	0
1,2-Dichloroethane-d4	0.323	0.289	-	10.5	20	79	0
1,2-Dichloroethane	0.374	0.348	-	7	20	80	0
Methyl cyclohexane	0.405	0.461	-	-13.8	20	88	0
Trichloroethene	0.287	0.286	-	0.3	20	82	0
Dibromomethane	0.192	0.175	-	8.9	20	79	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA131  
 Lab File ID : V31221207A01  
 Sample No : WG1720808-2  
 Channel :

Lab Number : L2267824  
 Project Number : 4867.02  
 Calibration Date : 12/07/22 10:23  
 Init. Calib. Date(s) : 11/28/22 11/28/22  
 Init. Calib. Times : 14:00 18:14

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.278	0.281	-	-1.1	20	84	0
2-Chloroethyl vinyl ether	0.169	0.16	-	5.3	20	82	0
Bromodichloromethane	0.412	0.39	-	5.3	20	83	0
1,4-Dioxane	0.00292	0.00278*	-	4.8	20	73	-.06
cis-1,3-Dichloropropene	0.438	0.451	-	-3	20	84	0
Chlorobenzene-d5	1	1	-	0	20	80	0
Toluene-d8	1.235	1.36	-	-10.1	20	87	0
Toluene	0.84	0.939	-	-11.8	20	87	0
4-Methyl-2-pentanone	0.144	0.13	-	9.7	20	76	0
Tetrachloroethene	0.356	0.407	-	-14.3	20	83	0
trans-1,3-Dichloropropene	0.534	0.578	-	-8.2	20	85	0
Ethyl methacrylate	0.453	0.431	-	4.9	20	80	0
1,1,2-Trichloroethane	0.28	0.282	-	-0.7	20	84	0
Chlorodibromomethane	0.391	0.408	-	-4.3	20	82	0
1,3-Dichloropropane	0.535	0.563	-	-5.2	20	84	0
1,2-Dibromoethane	0.327	0.343	-	-4.9	20	82	0
2-Hexanone	40	34.307	-	14.2	20	70	0
Chlorobenzene	1.016	1.076	-	-5.9	20	86	0
Ethylbenzene	1.617	1.815	-	-12.2	20	88	0
1,1,1,2-Tetrachloroethane	0.353	0.39	-	-10.5	20	87	0
p/m Xylene	0.649	0.721	-	-11.1	20	90	0
o Xylene	0.626	0.686	-	-9.6	20	91	0
Styrene	1.081	1.16	-	-7.3	20	89	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	76	0
Bromoform	0.502	0.508	-	-1.2	20	79	0
Isopropylbenzene	2.837	3.485	-	-22.8*	20	89	0
4-Bromofluorobenzene	0.807	0.885	-	-9.7	20	81	0
Bromobenzene	0.812	0.872	-	-7.4	20	83	0
n-Propylbenzene	3.39	4.219	-	-24.5*	20	92	0
1,4-Dichlorobutane	0.923	0.969	-	-5	20	83	0
1,1,2,2-Tetrachloroethane	0.779	0.83	-	-6.5	20	84	0
4-Ethyltoluene	2.845	3.502	-	-23.1*	20	92	0
2-Chlorotoluene	2.114	2.494	-	-18	20	91	0
1,3,5-Trimethylbenzene	2.534	3.131	-	-23.6*	20	93	0
1,2,3-Trichloropropane	0.626	0.642	-	-2.6	20	80	0
trans-1,4-Dichloro-2-buten	0.237	0.242	-	-2.1	20	80	0
4-Chlorotoluene	2.194	2.602	-	-18.6	20	92	0
tert-Butylbenzene	2.14	2.607	-	-21.8*	20	89	0
1,2,4-Trimethylbenzene	2.622	3.139	-	-19.7	20	91	0
sec-Butylbenzene	3.12	3.909	-	-25.3*	20	91	0
p-Isopropyltoluene	2.79	3.435	-	-23.1*	20	91	0
1,3-Dichlorobenzene	1.555	1.747	-	-12.3	20	88	0
1,4-Dichlorobenzene	1.584	1.753	-	-10.7	20	87	0

\* Value outside of QC limits.



## Calibration Verification Summary Form 7 Volatiles

Client : Sanborn, Head & Associates, Inc.	Lab Number : L2267824
Project Name : 776 SUMMER ST.	Project Number : 4867.02
Instrument ID : VOA131	Calibration Date : 12/07/22 10:23
Lab File ID : V31221207A01	Init. Calib. Date(s) : 11/28/22 11/28/22
Sample No : WG1720808-2	Init. Calib. Times : 14:00 18:14
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.72	2.061	-	-19.8	20	89	0
n-Butylbenzene	2.534	3.148	-	-24.2*	20	92	0
1,2-Dichlorobenzene	1.519	1.666	-	-9.7	20	86	0
1,2,4,5-Tetramethylbenzene	2.904	3.225	-	-11.1	20	81	0
1,2-Dibromo-3-chloropropan	0.157	0.149	-	5.1	20	72	0
1,3,5-Trichlorobenzene	1.256	1.356	-	-8	20	81	0
Hexachlorobutadiene	0.58	0.663	-	-14.3	20	82	0
1,2,4-Trichlorobenzene	1.202	1.256	-	-4.5	20	78	0
Naphthalene	2.96	2.955	-	0.2	20	75	0
1,2,3-Trichlorobenzene	1.169	1.197	-	-2.4	20	76	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA100  
 Lab File ID : V00221208A01  
 Sample No : WG1721378-2  
 Channel :

Lab Number : L2267824  
 Project Number : 4867.02  
 Calibration Date : 12/08/22 07:22  
 Init. Calib. Date(s) : 11/17/22 11/17/22  
 Init. Calib. Times : 14:19 19:05

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	111	0
Dichlorodifluoromethane	0.195	0.202	-	-3.6	20	106	0
Chloromethane	0.307	0.273	-	11.1	20	97	0
Vinyl chloride	0.265	0.284	-	-7.2	20	109	0
Bromomethane	0.138	0.164	-	-18.8	20	139	0
Chloroethane	0.163	0.179	-	-9.8	20	114	0
Trichlorofluoromethane	0.3	0.352	-	-17.3	20	112	0
Ethyl ether	0.102	0.099	-	2.9	20	98	0
1,1-Dichloroethene	0.205	0.206	-	-0.5	20	103	0
Carbon disulfide	0.452	0.445	-	1.5	20	103	0
Freon-113	0.218	0.238	-	-9.2	20	107	0
Acrolein	0.034	0.034	-	0	20	104	-.01
Methylene chloride	0.256	0.233	-	9	20	102	0
Acetone	40	37.391	-	6.5	20	98	0
trans-1,2-Dichloroethene	0.243	0.234	-	3.7	20	105	0
Methyl acetate	0.144	0.132	-	8.3	20	98	0
Methyl tert-butyl ether	0.562	0.547	-	2.7	20	101	0
tert-Butyl alcohol	0.025	0.023	-	8	20	88	0
Diisopropyl ether	0.988	0.906	-	8.3	20	94	0
1,1-Dichloroethane	0.49	0.47	-	4.1	20	100	0
Halothane	0.182	0.184	-	-1.1	20	103	0
Acrylonitrile	0.075	0.063	-	16	20	94	0
Ethyl tert-butyl ether	0.859	0.824	-	4.1	20	98	0
Vinyl acetate	0.524	0.556	-	-6.1	20	112	0
cis-1,2-Dichloroethene	0.267	0.251	-	6	20	101	0
2,2-Dichloropropane	0.385	0.399	-	-3.6	20	108	0
Bromochloromethane	0.115	0.113	-	1.7	20	100	0
Cyclohexane	0.495	0.485	-	2	20	101	0
Chloroform	0.466	0.444	-	4.7	20	101	0
Ethyl acetate	0.236	0.211	-	10.6	20	92	0
Carbon tetrachloride	0.334	0.342	-	-2.4	20	105	0
Tetrahydrofuran	0.065	0.058	-	10.8	20	93	0
Dibromofluoromethane	0.265	0.259	-	2.3	20	108	0
1,1,1-Trichloroethane	0.361	0.367	-	-1.7	20	105	0
2-Butanone	0.104	0.091	-	12.5	20	91	0
1,1-Dichloropropene	0.317	0.338	-	-6.6	20	105	0
Benzene	0.968	0.943	-	2.6	20	102	0
tert-Amyl methyl ether	0.691	0.676	-	2.2	20	97	0
1,2-Dichloroethane-d4	0.274	0.274	-	0	20	112	0
1,2-Dichloroethane	0.333	0.324	-	2.7	20	100	0
Methyl cyclohexane	0.438	0.435	-	0.7	20	104	0
Trichloroethene	0.263	0.253	-	3.8	20	101	0
Dibromomethane	0.139	0.134	-	3.6	20	98	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA100  
 Lab File ID : V00221208A01  
 Sample No : WG1721378-2  
 Channel :

Lab Number : L2267824  
 Project Number : 4867.02  
 Calibration Date : 12/08/22 07:22  
 Init. Calib. Date(s) : 11/17/22 11/17/22  
 Init. Calib. Times : 14:19 19:05

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.288	0.27	-	6.2	20	96	0
2-Chloroethyl vinyl ether	0.143	0.137	-	4.2	20	90	0
Bromodichloromethane	0.348	0.335	-	3.7	20	95	0
1,4-Dioxane	0.00162	0.00148*	-	8.6	20	96	0
cis-1,3-Dichloropropene	0.423	0.412	-	2.6	20	95	0
Chlorobenzene-d5	1	1	-	0	20	113	0
Toluene-d8	1.334	1.294	-	3	20	110	0
Toluene	0.821	0.774	-	5.7	20	99	0
4-Methyl-2-pentanone	0.127	0.103	-	18.9	20	85	0
Tetrachloroethene	0.309	0.324	-	-4.9	20	104	0
trans-1,3-Dichloropropene	0.505	0.489	-	3.2	20	94	0
Ethyl methacrylate	0.392	0.359	-	8.4	20	90	0
1,1,2-Trichloroethane	0.237	0.211	-	11	20	92	0
Chlorodibromomethane	0.323	0.317	-	1.9	20	93	0
1,3-Dichloropropane	0.468	0.445	-	4.9	20	93	0
1,2-Dibromoethane	0.263	0.252	-	4.2	20	94	0
2-Hexanone	0.228	0.194	-	14.9	20	83	0
Chlorobenzene	0.903	0.876	-	3	20	95	0
Ethylbenzene	1.556	1.499	-	3.7	20	97	0
1,1,1,2-Tetrachloroethane	0.328	0.319	-	2.7	20	93	0
p/m Xylene	0.594	0.593	-	0.2	20	98	0
o Xylene	0.559	0.554	-	0.9	20	96	0
Styrene	0.943	0.924	-	2	20	94	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	117	0
Bromoform	0.373	0.349	-	6.4	20	94	0
Isopropylbenzene	3.028	2.81	-	7.2	20	99	0
4-Bromofluorobenzene	0.973	0.889	-	8.6	20	110	0
Bromobenzene	0.731	0.653	-	10.7	20	94	0
n-Propylbenzene	3.529	3.35	-	5.1	20	100	0
1,4-Dichlorobutane	1.022	0.877	-	14.2	20	88	0
1,1,2,2-Tetrachloroethane	0.664	0.592	-	10.8	20	95	0
4-Ethyltoluene	2.992	2.79	-	6.8	20	99	0
2-Chlorotoluene	2.145	1.957	-	8.8	20	97	0
1,3,5-Trimethylbenzene	2.58	2.419	-	6.2	20	99	0
1,2,3-Trichloropropane	0.524	0.48	-	8.4	20	93	0
trans-1,4-Dichloro-2-buten	0.234	0.203	-	13.2	20	90	0
4-Chlorotoluene	2.234	2.041	-	8.6	20	96	0
tert-Butylbenzene	2.192	2.07	-	5.6	20	100	0
1,2,4-Trimethylbenzene	2.562	2.406	-	6.1	20	98	0
sec-Butylbenzene	3.261	3.16	-	3.1	20	101	0
p-Isopropyltoluene	2.792	2.708	-	3	20	102	0
1,3-Dichlorobenzene	1.392	1.328	-	4.6	20	98	0
1,4-Dichlorobenzene	1.397	1.325	-	5.2	20	97	0

\* Value outside of QC limits.



## Calibration Verification Summary Form 7 Volatiles

Client	: Sanborn, Head & Associates, Inc.	Lab Number	: L2267824
Project Name	: 776 SUMMER ST.	Project Number	: 4867.02
Instrument ID	: VOA100	Calibration Date	: 12/08/22 07:22
Lab File ID	: V00221208A01	Init. Calib. Date(s)	: 11/17/22      11/17/22
Sample No	: WG1721378-2	Init. Calib. Times	: 14:19      19:05
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.677	1.637	-	2.4	20	102	0
n-Butylbenzene	2.442	2.433	-	0.4	20	105	0
1,2-Dichlorobenzene	1.292	1.223	-	5.3	20	96	0
1,2,4,5-Tetramethylbenzene	2.436	2.343	-	3.8	20	99	0
1,2-Dibromo-3-chloropropan	0.105	0.098	-	6.7	20	93	0
1,3,5-Trichlorobenzene	0.973	0.97	-	0.3	20	104	0
Hexachlorobutadiene	0.438	0.428	-	2.3	20	104	0
1,2,4-Trichlorobenzene	0.87	0.861	-	1	20	104	0
Naphthalene	1.828	1.724	-	5.7	20	96	0
1,2,3-Trichlorobenzene	0.797	0.77	-	3.4	20	102	0

\* Value outside of QC limits.





## ANALYTICAL REPORT

Lab Number:	L2268107
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.02
Report Date:	12/19/22

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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).

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



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2268107-01	SH-GP-316 (3)	SOIL	BOSTON, MA	12/05/22 07:55	12/05/22
L2268107-02	SH-GP-316 (16.5-20)	SOIL	BOSTON, MA	12/05/22 08:20	12/05/22
L2268107-03	SH-GP-316 (18)	SOIL	BOSTON, MA	12/05/22 08:25	12/05/22
L2268107-04	SH-GP-315 (3)	SOIL	BOSTON, MA	12/05/22 09:10	12/05/22
L2268107-05	SH-GP-315 (18.4-20)	SOIL	BOSTON, MA	12/05/22 09:45	12/05/22
L2268107-06	SH-GP-315 (19)	SOIL	BOSTON, MA	12/05/22 09:40	12/05/22
L2268107-07	SH-GP-313 (3)	SOIL	BOSTON, MA	12/05/22 10:35	12/05/22
L2268107-08	SH-GP-313 (15.5)	SOIL	BOSTON, MA	12/05/22 10:55	12/05/22
L2268107-09	SH-GP-313 (13-18)	SOIL	BOSTON, MA	12/05/22 10:45	12/05/22
L2268107-10	SH-GP-307 (6)	SOIL	BOSTON, MA	12/05/22 13:45	12/05/22
L2268107-11	SH-GP-307 (13-15)	SOIL	BOSTON, MA	12/05/22 13:55	12/05/22
L2268107-12	SH-GP-307 (14.5)	SOIL	BOSTON, MA	12/05/22 14:00	12/05/22
L2268107-13	SH-GP-311 (15-20)	SOIL	BOSTON, MA	12/05/22 14:45	12/05/22
L2268107-14	SH-GP-311 (17.5)	SOIL	BOSTON, MA	12/05/22 14:50	12/05/22



Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

### Case Narrative (continued)

#### Report Submission

December 19, 2022: This final report includes the results of all requested analyses.

December 14, 2022: This is a preliminary report.

#### MCP Related Narratives

##### Volatile Organics

L2268107-07 and -10: A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question H:

L2268107-07 and -10: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0012)

Average Response Factor: 1,4-dioxane

Verification: carbon disulfide (145%)

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

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 12/19/22

## QC OUTLIER SUMMARY REPORT

**Project Name:** 776 SUMMER ST.

**Lab Number:** L2268107

**Project Number:** 4867.02

**Report Date:** 12/19/22

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
Volatile Petroleum Hydrocarbons - Westborough Lab								
VPH-18-2.1	SH-GP-313 (15.5)	L2268107-08	2,5-Dibromotoluene-PID	Surrogate	138	70-130	-	potential high bias
VPH-18-2.1	SH-GP-313 (15.5)	L2268107-08	2,5-Dibromotoluene-FID	Surrogate	148	70-130	-	potential high bias

# ORGANICS

# VOLATILES

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

Lab ID: L2268107-07  
 Client ID: SH-GP-313 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 10:35  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/08/22 15:34  
 Analyst: JIC  
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.1	--	1
1,1-Dichloroethane	ND		ug/kg	0.83	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.83	--	1
1,2-Dichloropropane	ND		ug/kg	0.83	--	1
Dibromochloromethane	ND		ug/kg	0.83	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.83	--	1
Tetrachloroethene	ND		ug/kg	0.41	--	1
Chlorobenzene	ND		ug/kg	0.41	--	1
Trichlorofluoromethane	ND		ug/kg	3.3	--	1
1,2-Dichloroethane	ND		ug/kg	0.83	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.41	--	1
Bromodichloromethane	ND		ug/kg	0.41	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.83	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.41	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.41	--	1
1,1-Dichloropropene	ND		ug/kg	0.41	--	1
Bromoform	ND		ug/kg	3.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.41	--	1
Benzene	ND		ug/kg	0.41	--	1
Toluene	ND		ug/kg	0.83	--	1
Ethylbenzene	ND		ug/kg	0.83	--	1
Chloromethane	ND		ug/kg	3.3	--	1
Bromomethane	ND		ug/kg	1.6	--	1
Vinyl chloride	ND		ug/kg	0.83	--	1
Chloroethane	ND		ug/kg	1.6	--	1
1,1-Dichloroethene	ND		ug/kg	0.83	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

## SAMPLE RESULTS

Lab ID: L2268107-07  
 Client ID: SH-GP-313 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 10:35  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.41	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	--	1
Methyl tert butyl ether	ND		ug/kg	1.6	--	1
p/m-Xylene	ND		ug/kg	1.6	--	1
o-Xylene	ND		ug/kg	0.83	--	1
Xylenes, Total	ND		ug/kg	0.83	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.83	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.83	--	1
Dibromomethane	ND		ug/kg	1.6	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	--	1
Styrene	ND		ug/kg	0.83	--	1
Dichlorodifluoromethane	ND		ug/kg	8.3	--	1
Acetone	ND		ug/kg	21	--	1
Carbon disulfide	ND		ug/kg	8.3	--	1
Methyl ethyl ketone	ND		ug/kg	8.3	--	1
Methyl isobutyl ketone	ND		ug/kg	8.3	--	1
2-Hexanone	ND		ug/kg	8.3	--	1
Bromochloromethane	ND		ug/kg	1.6	--	1
Tetrahydrofuran	ND		ug/kg	3.3	--	1
2,2-Dichloropropane	ND		ug/kg	1.6	--	1
1,2-Dibromoethane	ND		ug/kg	0.83	--	1
1,3-Dichloropropane	ND		ug/kg	1.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.41	--	1
Bromobenzene	ND		ug/kg	1.6	--	1
n-Butylbenzene	ND		ug/kg	0.83	--	1
sec-Butylbenzene	ND		ug/kg	0.83	--	1
tert-Butylbenzene	ND		ug/kg	1.6	--	1
o-Chlorotoluene	ND		ug/kg	1.6	--	1
p-Chlorotoluene	ND		ug/kg	1.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.5	--	1
Hexachlorobutadiene	ND		ug/kg	3.3	--	1
Isopropylbenzene	ND		ug/kg	0.83	--	1
p-Isopropyltoluene	ND		ug/kg	0.83	--	1
Naphthalene	ND		ug/kg	3.3	--	1
n-Propylbenzene	ND		ug/kg	0.83	--	1



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

**Lab ID:** L2268107-07  
**Client ID:** SH-GP-313 (3)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/05/22 10:35  
**Date Received:** 12/05/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	--	1
Diethyl ether	ND		ug/kg	1.6	--	1
Diisopropyl Ether	ND		ug/kg	1.6	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.6	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.6	--	1
1,4-Dioxane	ND		ug/kg	66	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

Lab ID: L2268107-10  
 Client ID: SH-GP-307 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 13:45  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/08/22 15:08  
 Analyst: JIC  
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.98	--	1
Chloroform	ND		ug/kg	1.5	--	1
Carbon tetrachloride	ND		ug/kg	0.98	--	1
1,2-Dichloropropane	ND		ug/kg	0.98	--	1
Dibromochloromethane	ND		ug/kg	0.98	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	--	1
Tetrachloroethene	70		ug/kg	0.49	--	1
Chlorobenzene	ND		ug/kg	0.49	--	1
Trichlorofluoromethane	ND		ug/kg	3.9	--	1
1,2-Dichloroethane	ND		ug/kg	0.98	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	--	1
Bromodichloromethane	ND		ug/kg	0.49	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	--	1
1,1-Dichloropropene	ND		ug/kg	0.49	--	1
Bromoform	ND		ug/kg	3.9	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	--	1
Benzene	ND		ug/kg	0.49	--	1
Toluene	ND		ug/kg	0.98	--	1
Ethylbenzene	ND		ug/kg	0.98	--	1
Chloromethane	ND		ug/kg	3.9	--	1
Bromomethane	ND		ug/kg	2.0	--	1
Vinyl chloride	ND		ug/kg	0.98	--	1
Chloroethane	ND		ug/kg	2.0	--	1
1,1-Dichloroethene	ND		ug/kg	0.98	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

**Lab ID:** L2268107-10  
**Client ID:** SH-GP-307 (6)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/05/22 13:45  
**Date Received:** 12/05/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	4.1		ug/kg	0.49	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	--	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	--	1
Methyl tert butyl ether	ND		ug/kg	2.0	--	1
p/m-Xylene	ND		ug/kg	2.0	--	1
o-Xylene	ND		ug/kg	0.98	--	1
Xylenes, Total	ND		ug/kg	0.98	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.98	--	1
Dibromomethane	ND		ug/kg	2.0	--	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	--	1
Styrene	ND		ug/kg	0.98	--	1
Dichlorodifluoromethane	ND		ug/kg	9.8	--	1
Acetone	ND		ug/kg	24	--	1
Carbon disulfide	ND		ug/kg	9.8	--	1
Methyl ethyl ketone	ND		ug/kg	9.8	--	1
Methyl isobutyl ketone	ND		ug/kg	9.8	--	1
2-Hexanone	ND		ug/kg	9.8	--	1
Bromochloromethane	ND		ug/kg	2.0	--	1
Tetrahydrofuran	ND		ug/kg	3.9	--	1
2,2-Dichloropropane	ND		ug/kg	2.0	--	1
1,2-Dibromoethane	ND		ug/kg	0.98	--	1
1,3-Dichloropropane	ND		ug/kg	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	--	1
Bromobenzene	ND		ug/kg	2.0	--	1
n-Butylbenzene	ND		ug/kg	0.98	--	1
sec-Butylbenzene	ND		ug/kg	0.98	--	1
tert-Butylbenzene	ND		ug/kg	2.0	--	1
o-Chlorotoluene	ND		ug/kg	2.0	--	1
p-Chlorotoluene	ND		ug/kg	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	--	1
Hexachlorobutadiene	ND		ug/kg	3.9	--	1
Isopropylbenzene	ND		ug/kg	0.98	--	1
p-Isopropyltoluene	ND		ug/kg	0.98	--	1
Naphthalene	ND		ug/kg	3.9	--	1
n-Propylbenzene	ND		ug/kg	0.98	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

Lab ID: L2268107-10  
 Client ID: SH-GP-307 (6)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 13:45  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--	1
Diethyl ether	ND		ug/kg	2.0	--	1
Diisopropyl Ether	ND		ug/kg	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--	1
1,4-Dioxane	ND		ug/kg	79	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	98		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

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

Analytical Method: 141,8260D  
Analytical Date: 12/08/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07,10 Batch: WG1721378-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

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

Analytical Method: 141,8260D  
Analytical Date: 12/08/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07,10 Batch: WG1721378-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 12/08/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07,10 Batch: WG1721378-5</b>					
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
Diethyl ether	ND		ug/kg	2.0	--
Diisopropyl Ether	ND		ug/kg	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	96		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
Methylene chloride	87		87		70-130	0		20
1,1-Dichloroethane	93		92		70-130	1		20
Chloroform	92		91		70-130	1		20
Carbon tetrachloride	99		100		70-130	1		20
1,2-Dichloropropane	89		88		70-130	1		20
Dibromochloromethane	93		93		70-130	0		20
1,1,2-Trichloroethane	84		84		70-130	0		20
Tetrachloroethene	102		101		70-130	1		20
Chlorobenzene	94		94		70-130	0		20
Trichlorofluoromethane	115		115		70-130	0		20
1,2-Dichloroethane	92		92		70-130	0		20
1,1,1-Trichloroethane	98		97		70-130	1		20
Bromodichloromethane	92		92		70-130	0		20
trans-1,3-Dichloropropene	92		92		70-130	0		20
cis-1,3-Dichloropropene	93		92		70-130	1		20
1,1-Dichloropropene	101		101		70-130	0		20
Bromoform	89		89		70-130	0		20
1,1,2,2-Tetrachloroethane	83		83		70-130	0		20
Benzene	94		93		70-130	1		20
Toluene	92		91		70-130	1		20
Ethylbenzene	94		93		70-130	1		20
Chloromethane	85		84		70-130	1		20
Bromomethane	117		116		70-130	1		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
Vinyl chloride	104		101		70-130	3		20
Chloroethane	107		105		70-130	2		20
1,1-Dichloroethene	98		96		70-130	2		20
trans-1,2-Dichloroethene	92		93		70-130	1		20
Trichloroethene	94		95		70-130	1		20
1,2-Dichlorobenzene	92		92		70-130	0		20
1,3-Dichlorobenzene	93		92		70-130	1		20
1,4-Dichlorobenzene	92		92		70-130	0		20
Methyl tert butyl ether	92		92		70-130	0		20
p/m-Xylene	97		96		70-130	1		20
o-Xylene	96		95		70-130	1		20
cis-1,2-Dichloroethene	91		89		70-130	2		20
Dibromomethane	91		91		70-130	0		20
1,2,3-Trichloropropane	87		87		70-130	0		20
Styrene	94		93		70-130	1		20
Dichlorodifluoromethane	102		100		70-130	2		20
Acetone	84		83		70-130	1		20
Carbon disulfide	95		93		70-130	2		20
Methyl ethyl ketone	78		79		70-130	1		20
Methyl isobutyl ketone	74		75		70-130	1		20
2-Hexanone	78		79		70-130	1		20
Bromochloromethane	94		95		70-130	1		20
Tetrahydrofuran	80		80		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
2,2-Dichloropropane	99		97		70-130	2		20
1,2-Dibromoethane	91		91		70-130	0		20
1,3-Dichloropropane	91		91		70-130	0		20
1,1,1,2-Tetrachloroethane	95		94		70-130	1		20
Bromobenzene	87		87		70-130	0		20
n-Butylbenzene	97		96		70-130	1		20
sec-Butylbenzene	95		95		70-130	0		20
tert-Butylbenzene	93		92		70-130	1		20
o-Chlorotoluene	89		89		70-130	0		20
p-Chlorotoluene	90		90		70-130	0		20
1,2-Dibromo-3-chloropropane	88		89		70-130	1		20
Hexachlorobutadiene	96		95		70-130	1		20
Isopropylbenzene	92		92		70-130	0		20
p-Isopropyltoluene	95		95		70-130	0		20
Naphthalene	91		92		70-130	1		20
n-Propylbenzene	93		93		70-130	0		20
1,2,3-Trichlorobenzene	94		94		70-130	0		20
1,2,4-Trichlorobenzene	96		95		70-130	1		20
1,3,5-Trimethylbenzene	92		92		70-130	0		20
1,2,4-Trimethylbenzene	92		92		70-130	0		20
Diethyl ether	92		92		70-130	0		20
Diisopropyl Ether	87		86		70-130	1		20
Ethyl-Tert-Butyl-Ether	91		90		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07,10 Batch: WG1721378-3 WG1721378-4								
Tertiary-Amyl Methyl Ether	92		92		70-130	0		20
1,4-Dioxane	85		85		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	98		97		70-130

# PETROLEUM HYDROCARBONS

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

Lab ID: L2268107-08  
 Client ID: SH-GP-313 (15.5)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 10:55  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 12/07/22 16:48  
 Analyst: BAD  
 Percent Solids: 81%

Trap: EST, Carbo-pack B/Carboxen 1000&1001

Analytical Column: Restek, RTX-502.2,  
 105m, 0.53ID, 3um

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Were samples received in methanol? Covering the Soil  
 Methanol ratio: 1:1.6

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		mg/kg	5.08	--	1
C9-C12 Aliphatics	ND		mg/kg	5.08	--	1
C9-C10 Aromatics	ND		mg/kg	5.08	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.08	--	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5.08	--	1
Benzene	ND		mg/kg	0.102	--	1
Toluene	ND		mg/kg	0.102	--	1
Ethylbenzene	ND		mg/kg	0.102	--	1
p/m-Xylene	ND		mg/kg	0.102	--	1
o-Xylene	ND		mg/kg	0.102	--	1
Methyl tert butyl ether	ND		mg/kg	0.051	--	1
Naphthalene	ND		mg/kg	0.203	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	138	Q	70-130
2,5-Dibromotoluene-FID	148	Q	70-130

**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**SAMPLE RESULTS**

Lab ID: L2268107-09  
 Client ID: SH-GP-313 (13-18)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 10:45  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 12/08/22 09:25  
 Analyst: SR  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 12/07/22 00:13  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 12/07/22

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	7.31	--	1
C19-C36 Aliphatics	ND		mg/kg	7.31	--	1
C11-C22 Aromatics	ND		mg/kg	7.31	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.31	--	1
Naphthalene	ND		mg/kg	0.366	--	1
2-Methylnaphthalene	ND		mg/kg	0.366	--	1
Acenaphthylene	ND		mg/kg	0.366	--	1
Acenaphthene	ND		mg/kg	0.366	--	1
Fluorene	ND		mg/kg	0.366	--	1
Phenanthrene	ND		mg/kg	0.366	--	1
Anthracene	ND		mg/kg	0.366	--	1
Fluoranthene	ND		mg/kg	0.366	--	1
Pyrene	ND		mg/kg	0.366	--	1
Benzo(a)anthracene	ND		mg/kg	0.366	--	1
Chrysene	ND		mg/kg	0.366	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.366	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.366	--	1
Benzo(a)pyrene	ND		mg/kg	0.366	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.366	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.366	--	1
Benzo(ghi)perylene	ND		mg/kg	0.366	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**SAMPLE RESULTS**

Lab ID: L2268107-09  
 Client ID: SH-GP-313 (13-18)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 10:45  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	66		40-140
o-Terphenyl	79		40-140
2-Fluorobiphenyl	78		40-140
2-Bromonaphthalene	81		40-140

**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**SAMPLE RESULTS**

Lab ID: L2268107-11  
 Client ID: SH-GP-307 (13-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 13:55  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 12/08/22 09:50  
 Analyst: SR  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 12/07/22 00:13  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 12/07/22

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	7.16	--	1
C19-C36 Aliphatics	ND		mg/kg	7.16	--	1
C11-C22 Aromatics	ND		mg/kg	7.16	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.16	--	1
Naphthalene	ND		mg/kg	0.358	--	1
2-Methylnaphthalene	ND		mg/kg	0.358	--	1
Acenaphthylene	ND		mg/kg	0.358	--	1
Acenaphthene	ND		mg/kg	0.358	--	1
Fluorene	ND		mg/kg	0.358	--	1
Phenanthrene	ND		mg/kg	0.358	--	1
Anthracene	ND		mg/kg	0.358	--	1
Fluoranthene	ND		mg/kg	0.358	--	1
Pyrene	ND		mg/kg	0.358	--	1
Benzo(a)anthracene	ND		mg/kg	0.358	--	1
Chrysene	ND		mg/kg	0.358	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.358	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.358	--	1
Benzo(a)pyrene	ND		mg/kg	0.358	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.358	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.358	--	1
Benzo(ghi)perylene	ND		mg/kg	0.358	--	1



**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**SAMPLE RESULTS**

Lab ID: L2268107-11  
 Client ID: SH-GP-307 (13-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 13:55  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	64		40-140
o-Terphenyl	74		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	79		40-140

**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**SAMPLE RESULTS**

Lab ID: L2268107-12  
 Client ID: SH-GP-307 (14.5)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 14:00  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 12/07/22 17:18  
 Analyst: BAD  
 Percent Solids: 91%

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

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Were samples received in methanol? Covering the Soil  
 Methanol ratio: 1:1.6

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

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
C5-C8 Aliphatics	ND		mg/kg	3.90	--	1
C9-C12 Aliphatics	ND		mg/kg	3.90	--	1
C9-C10 Aromatics	ND		mg/kg	3.90	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	3.90	--	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	3.90	--	1
Benzene	ND		mg/kg	0.078	--	1
Toluene	ND		mg/kg	0.078	--	1
Ethylbenzene	ND		mg/kg	0.078	--	1
p/m-Xylene	ND		mg/kg	0.078	--	1
o-Xylene	ND		mg/kg	0.078	--	1
Methyl tert butyl ether	ND		mg/kg	0.039	--	1
Naphthalene	ND		mg/kg	0.156	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	97		70-130
2,5-Dibromotoluene-FID	104		70-130

**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**SAMPLE RESULTS**

Lab ID: L2268107-13  
 Client ID: SH-GP-311 (15-20)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 14:45  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 12/08/22 10:15  
 Analyst: SR  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 12/07/22 00:13  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 12/07/22

**Quality Control Information**

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	7.01	--	1
C19-C36 Aliphatics	ND		mg/kg	7.01	--	1
C11-C22 Aromatics	ND		mg/kg	7.01	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.01	--	1
Naphthalene	ND		mg/kg	0.350	--	1
2-Methylnaphthalene	ND		mg/kg	0.350	--	1
Acenaphthylene	ND		mg/kg	0.350	--	1
Acenaphthene	ND		mg/kg	0.350	--	1
Fluorene	ND		mg/kg	0.350	--	1
Phenanthrene	ND		mg/kg	0.350	--	1
Anthracene	ND		mg/kg	0.350	--	1
Fluoranthene	ND		mg/kg	0.350	--	1
Pyrene	ND		mg/kg	0.350	--	1
Benzo(a)anthracene	ND		mg/kg	0.350	--	1
Chrysene	ND		mg/kg	0.350	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.350	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.350	--	1
Benzo(a)pyrene	ND		mg/kg	0.350	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.350	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.350	--	1
Benzo(ghi)perylene	ND		mg/kg	0.350	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**SAMPLE RESULTS**

Lab ID: L2268107-13  
 Client ID: SH-GP-311 (15-20)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 14:45  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	61		40-140
o-Terphenyl	75		40-140
2-Fluorobiphenyl	80		40-140
2-Bromonaphthalene	79		40-140

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

## SAMPLE RESULTS

Lab ID: L2268107-14  
 Client ID: SH-GP-311 (17.5)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 14:50  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 12/07/22 17:49  
 Analyst: BAD  
 Percent Solids: 94%

Trap: EST, Carbo-pack B/Carboxen 1000&amp;1001

Analytical Column: Restek, RTX-502.2, 105m, 0.53ID, 3um

## Quality Control Information

Condition of sample received: Satisfactory  
 Sample Temperature upon receipt: Received on Ice  
 Were samples received in methanol? Covering the Soil  
 Methanol ratio: 1:1.6

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

C5-C8 Aliphatics	ND		mg/kg	3.67	--	1
C9-C12 Aliphatics	ND		mg/kg	3.67	--	1
C9-C10 Aromatics	ND		mg/kg	3.67	--	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	3.67	--	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	3.67	--	1
Benzene	ND		mg/kg	0.073	--	1
Toluene	ND		mg/kg	0.073	--	1
Ethylbenzene	ND		mg/kg	0.073	--	1
p/m-Xylene	ND		mg/kg	0.073	--	1
o-Xylene	ND		mg/kg	0.073	--	1
Methyl tert butyl ether	ND		mg/kg	0.037	--	1
Naphthalene	ND		mg/kg	0.147	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	92		70-130
2,5-Dibromotoluene-FID	99		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 12/08/22 08:57  
Analyst: SR

Extraction Method: EPA 3546  
Extraction Date: 12/07/22 00:13  
Cleanup Method: EPH-19-2.1  
Cleanup Date: 12/07/22

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 09,11,13 Batch: WG1720139-1					
C9-C18 Aliphatics	ND		mg/kg	6.64	--
C19-C36 Aliphatics	ND		mg/kg	6.64	--
C11-C22 Aromatics	ND		mg/kg	6.64	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.64	--
Naphthalene	ND		mg/kg	0.332	--
2-Methylnaphthalene	ND		mg/kg	0.332	--
Acenaphthylene	ND		mg/kg	0.332	--
Acenaphthene	ND		mg/kg	0.332	--
Fluorene	ND		mg/kg	0.332	--
Phenanthrene	ND		mg/kg	0.332	--
Anthracene	ND		mg/kg	0.332	--
Fluoranthene	ND		mg/kg	0.332	--
Pyrene	ND		mg/kg	0.332	--
Benzo(a)anthracene	ND		mg/kg	0.332	--
Chrysene	ND		mg/kg	0.332	--
Benzo(b)fluoranthene	ND		mg/kg	0.332	--
Benzo(k)fluoranthene	ND		mg/kg	0.332	--
Benzo(a)pyrene	ND		mg/kg	0.332	--
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.332	--
Dibenzo(a,h)anthracene	ND		mg/kg	0.332	--
Benzo(ghi)perylene	ND		mg/kg	0.332	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	61		40-140
o-Terphenyl	59		40-140
2-Fluorobiphenyl	74		40-140
2-Bromonaphthalene	76		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 131, VPH-18-2.1  
Analytical Date: 12/07/22 12:07  
Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 08,12,14 Batch: WG1720956-4					
C5-C8 Aliphatics	ND		mg/kg	5.00	--
C9-C12 Aliphatics	ND		mg/kg	5.00	--
C9-C10 Aromatics	ND		mg/kg	5.00	--
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.00	--
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5.00	--
Benzene	ND		mg/kg	0.100	--
Toluene	ND		mg/kg	0.100	--
Ethylbenzene	ND		mg/kg	0.100	--
p/m-Xylene	ND		mg/kg	0.100	--
o-Xylene	ND		mg/kg	0.100	--
Methyl tert butyl ether	ND		mg/kg	0.050	--
Naphthalene	ND		mg/kg	0.200	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	98		70-130
2,5-Dibromotoluene-FID	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 09,11,13 Batch: WG1720139-2 WG1720139-3								
C9-C18 Aliphatics	77		70		40-140	10		25
C19-C36 Aliphatics	74		75		40-140	1		25
C11-C22 Aromatics	96		101		40-140	5		25
Naphthalene	84		95		40-140	12		25
2-Methylnaphthalene	86		97		40-140	12		25
Acenaphthylene	88		98		40-140	11		25
Acenaphthene	90		100		40-140	11		25
Fluorene	92		98		40-140	6		25
Phenanthrene	91		96		40-140	5		25
Anthracene	93		97		40-140	4		25
Fluoranthene	94		97		40-140	3		25
Pyrene	94		97		40-140	3		25
Benzo(a)anthracene	94		99		40-140	5		25
Chrysene	94		98		40-140	4		25
Benzo(b)fluoranthene	92		95		40-140	3		25
Benzo(k)fluoranthene	89		93		40-140	4		25
Benzo(a)pyrene	96		100		40-140	4		25
Indeno(1,2,3-cd)Pyrene	93		96		40-140	3		25
Dibenzo(a,h)anthracene	90		94		40-140	4		25
Benzo(ghi)perylene	88		91		40-140	3		25



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 09,11,13 Batch: WG1720139-2 WG1720139-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	59		60		40-140
o-Terphenyl	78		80		40-140
2-Fluorobiphenyl	99		97		40-140
2-Bromonaphthalene	101		98		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2268107

Project Number: 4867.02

Report Date: 12/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 08,12,14 Batch: WG1720956-2 WG1720956-3								
C5-C8 Aliphatics	109		107		70-130	2		25
C9-C12 Aliphatics	121		118		70-130	3		25
C9-C10 Aromatics	114		112		70-130	2		25
Benzene	116		114		70-130	2		25
Toluene	115		113		70-130	2		25
Ethylbenzene	116		114		70-130	2		25
p/m-Xylene	115		113		70-130	2		25
o-Xylene	113		111		70-130	2		25
Methyl tert butyl ether	109		107		70-130	2		25
Naphthalene	113		108		70-130	5		25
1,2,4-Trimethylbenzene	114		112		70-130	2		25
Pentane	90		88		70-130	2		25
2-Methylpentane	114		109		70-130	4		25
2,2,4-Trimethylpentane	120		118		70-130	2		25
n-Nonane	121		117		30-130	3		25
n-Decane	120		118		70-130	2		25
n-Butylcyclohexane	120		118		70-130	2		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	109		105		70-130
2,5-Dibromotoluene-FID	114		112		70-130

# **INORGANICS & MISCELLANEOUS**

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

## SAMPLE RESULTS

Lab ID: L2268107-07  
 Client ID: SH-GP-313 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 10:35  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.4		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

## SAMPLE RESULTS

Lab ID: L2268107-08

Client ID: SH-GP-313 (15.5)

Sample Location: BOSTON, MA

Date Collected: 12/05/22 10:55

Date Received: 12/05/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.8		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

**Lab ID:** L2268107-09  
**Client ID:** SH-GP-313 (13-18)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/05/22 10:45  
**Date Received:** 12/05/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	89.5		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

**SAMPLE RESULTS**

**Lab ID:** L2268107-10  
**Client ID:** SH-GP-307 (6)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/05/22 13:45  
**Date Received:** 12/05/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	88.8		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

**SAMPLE RESULTS**

Lab ID: L2268107-11  
 Client ID: SH-GP-307 (13-15)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 13:55  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.3		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI





Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

## SAMPLE RESULTS

Lab ID: L2268107-12

Client ID: SH-GP-307 (14.5)

Sample Location: BOSTON, MA

Date Collected: 12/05/22 14:00

Date Received: 12/05/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.7		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

## SAMPLE RESULTS

Lab ID: L2268107-13

Client ID: SH-GP-311 (15-20)

Sample Location: BOSTON, MA

Date Collected: 12/05/22 14:45

Date Received: 12/05/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.5		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI



Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

## SAMPLE RESULTS

Lab ID: L2268107-14

Client ID: SH-GP-311 (17.5)

Sample Location: BOSTON, MA

Date Collected: 12/05/22 14:50

Date Received: 12/05/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.6		%	0.100	NA	1	-	12/06/22 10:49	121,2540G	RI



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2268107

Report Date: 12/19/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 07-14 QC Batch ID: WG1719842-1 QC Sample: L2268107-07 Client ID: SH-GP-313 (3)						
Solids, Total	91.4	91.8	%	0		20

**Project Name:** 776 SUMMER ST.**Lab Number:** L2268107**Project Number:** 4867.02**Report Date:** 12/19/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2268107-01A	Vial MeOH preserved	A	NA		5.2	Y	Absent		HOLD-8260HLW(14)
L2268107-01B	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	HOLD-8260HLW(14)
L2268107-01C	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	HOLD-8260HLW(14)
L2268107-01D	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		HOLD-WETCHEM()
L2268107-02A	Glass 120ml/4oz unpreserved	A	NA		5.2	Y	Absent		HOLD-EPH(14),HOLD-WETCHEM()
L2268107-03A	Vial MeOH preserved	A	NA		5.2	Y	Absent		HOLD-VPH(28)
L2268107-03B	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		HOLD-WETCHEM()
L2268107-04A	Vial MeOH preserved	A	NA		5.2	Y	Absent		HOLD-8260HLW(14)
L2268107-04B	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	HOLD-8260HLW(14)
L2268107-04C	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	HOLD-8260HLW(14)
L2268107-04D	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		HOLD-WETCHEM()
L2268107-05A	Glass 120ml/4oz unpreserved	A	NA		5.2	Y	Absent		HOLD-EPH(14),HOLD-WETCHEM()
L2268107-06A	Vial MeOH preserved	A	NA		5.2	Y	Absent		HOLD-VPH(28)
L2268107-06B	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		HOLD-WETCHEM()
L2268107-07A	Vial MeOH preserved	A	NA		5.2	Y	Absent		MCP-8260HLW-21(14)
L2268107-07B	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)
L2268107-07C	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)
L2268107-07D	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		TS(7)
L2268107-08A	Vial MeOH preserved	A	NA		5.2	Y	Absent		VPH-DELUX-18(28)
L2268107-08B	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		TS(7)
L2268107-09A	Glass 120ml/4oz unpreserved	A	NA		5.2	Y	Absent		EPH-DELUX-20(14),TS(7)
L2268107-10A	Vial MeOH preserved	A	NA		5.2	Y	Absent		MCP-8260HLW-21(14)
L2268107-10B	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)

**Project Name:** 776 SUMMER ST.

**Project Number:** 4867.02

Serial\_No:12192208:56

**Lab Number:** L2268107

**Report Date:** 12/19/22

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2268107-10C	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)
L2268107-10D	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		TS(7)
L2268107-11A	Glass 120ml/4oz unpreserved	A	NA		5.2	Y	Absent		EPH-DELUX-20(14),TS(7)
L2268107-12A	Vial MeOH preserved	A	NA		5.2	Y	Absent		VPH-DELUX-18(28)
L2268107-12B	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		TS(7)
L2268107-13A	Glass 120ml/4oz unpreserved	A	NA		5.2	Y	Absent		EPH-DELUX-20(14),TS(7)
L2268107-14A	Vial MeOH preserved	A	NA		5.2	Y	Absent		VPH-DELUX-18(28)
L2268107-14B	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		TS(7)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

### Footnotes

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

### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

#### **Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2268107  
**Report Date:** 12/19/22

## REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.
- 135 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, December 2019, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, March 1, 2020.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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**

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





# CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 12/5/22

ALPHA Job #: L2268107

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

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

### Project Information

Project Name: 776 Summer St

Project Location: Boston, MA

Project #: 4867.02

Project Manager: A. Cohen

ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due:

### Report Information - Data Deliverables

ADEx  EMAIL

### Billing Information

Same as Client info PO #:

### Client Information

Client: Sanborn Head

Address: 98 North Washington Boston, MA

Phone: 857-321-9736

Email: See p.1.

Additional Project Information:

### Regulatory Requirements & Project Information Requirements

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

ANALYSIS	VOC: <input checked="" type="checkbox"/> 2260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAB <input type="checkbox"/> RCRAC	VPH: <input checked="" type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> PCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
							Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS										Sample Comments	TOTAL # BOTTLES		
		Date	Time			VOC	SVOC	METALS	METALS	EPH	VPH	PCB	TPH	Filtration	Preservation				
68107-11	SH-6P-307(13-15)	12/5/22	1355	SO	SMZ														1
12	SH-6P-307(14.5)	12/5/22	1400	↓	↓														2
13	SH-6P-311(15-20)	12/5/22	1445	↓	↓														1
14	SH-6P-311(17.5)	↓	1450	↓	↓												VPH		2

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

**Preservative**  
A= None  
B= HCl  
C= HNO<sub>3</sub>  
D= H<sub>2</sub>SO<sub>4</sub>  
E= NaOH  
F= MeOH  
G= NaHSO<sub>4</sub>  
H= Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
I= Ascorbic Acid  
J= NH<sub>4</sub>Cl  
K= Zn Acetate  
O= Other

Container Type V  
Preservative F

Relinquished By: <u>[Signature]</u>	Date/Time: <u>12-5 1533</u>	Received By: <u>[Signature]</u>	Date/Time: <u>12-5 1533</u>
Relinquished By: <u>[Signature]</u>	Date/Time: <u>12-5 1755</u>	Received By: <u>[Signature]</u>	Date/Time: <u>12/5 1755</u>

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

# Method Blank Summary

## Form 4

### Volatiles

Client : Sanborn, Head & Associates, Inc.      Lab Number : L2268107  
Project Name : 776 SUMMER ST.      Project Number : 4867.02  
Lab Sample ID : WG1721378-5      Lab File ID : V00221208A05  
Instrument ID : VOA100  
Matrix : SOIL      Analysis Date : 12/08/22 09:05

Client Sample No.	Lab Sample ID	Analysis Date
WG1721378-3LCS	WG1721378-3	12/08/22 07:47
WG1721378-4LCSD	WG1721378-4	12/08/22 08:13
SH-GP-307 (6)	L2268107-10	12/08/22 15:08
SH-GP-313 (3)	L2268107-07	12/08/22 15:34

# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA100  
 Lab File ID : V00221208A01  
 Sample No : WG1721378-2  
 Channel :

Lab Number : L2268107  
 Project Number : 4867.02  
 Calibration Date : 12/08/22 07:22  
 Init. Calib. Date(s) : 11/17/22 11/17/22  
 Init. Calib. Times : 14:19 19:05

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	111	0
Dichlorodifluoromethane	0.195	0.202	-	-3.6	20	106	0
Chloromethane	0.307	0.273	-	11.1	20	97	0
Vinyl chloride	0.265	0.284	-	-7.2	20	109	0
Bromomethane	0.138	0.164	-	-18.8	20	139	0
Chloroethane	0.163	0.179	-	-9.8	20	114	0
Trichlorofluoromethane	0.3	0.352	-	-17.3	20	112	0
Ethyl ether	0.102	0.099	-	2.9	20	98	0
1,1-Dichloroethene	0.205	0.206	-	-0.5	20	103	0
Carbon disulfide	0.452	0.445	-	1.5	20	103	0
Freon-113	0.218	0.238	-	-9.2	20	107	0
Acrolein	0.034	0.034	-	0	20	104	-.01
Methylene chloride	0.256	0.233	-	9	20	102	0
Acetone	40	37.391	-	6.5	20	98	0
trans-1,2-Dichloroethene	0.243	0.234	-	3.7	20	105	0
Methyl acetate	0.144	0.132	-	8.3	20	98	0
Methyl tert-butyl ether	0.562	0.547	-	2.7	20	101	0
tert-Butyl alcohol	0.025	0.023	-	8	20	88	0
Diisopropyl ether	0.988	0.906	-	8.3	20	94	0
1,1-Dichloroethane	0.49	0.47	-	4.1	20	100	0
Halothane	0.182	0.184	-	-1.1	20	103	0
Acrylonitrile	0.075	0.063	-	16	20	94	0
Ethyl tert-butyl ether	0.859	0.824	-	4.1	20	98	0
Vinyl acetate	0.524	0.556	-	-6.1	20	112	0
cis-1,2-Dichloroethene	0.267	0.251	-	6	20	101	0
2,2-Dichloropropane	0.385	0.399	-	-3.6	20	108	0
Bromochloromethane	0.115	0.113	-	1.7	20	100	0
Cyclohexane	0.495	0.485	-	2	20	101	0
Chloroform	0.466	0.444	-	4.7	20	101	0
Ethyl acetate	0.236	0.211	-	10.6	20	92	0
Carbon tetrachloride	0.334	0.342	-	-2.4	20	105	0
Tetrahydrofuran	0.065	0.058	-	10.8	20	93	0
Dibromofluoromethane	0.265	0.259	-	2.3	20	108	0
1,1,1-Trichloroethane	0.361	0.367	-	-1.7	20	105	0
2-Butanone	0.104	0.091	-	12.5	20	91	0
1,1-Dichloropropene	0.317	0.338	-	-6.6	20	105	0
Benzene	0.968	0.943	-	2.6	20	102	0
tert-Amyl methyl ether	0.691	0.676	-	2.2	20	97	0
1,2-Dichloroethane-d4	0.274	0.274	-	0	20	112	0
1,2-Dichloroethane	0.333	0.324	-	2.7	20	100	0
Methyl cyclohexane	0.438	0.435	-	0.7	20	104	0
Trichloroethene	0.263	0.253	-	3.8	20	101	0
Dibromomethane	0.139	0.134	-	3.6	20	98	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA100  
 Lab File ID : V00221208A01  
 Sample No : WG1721378-2  
 Channel :

Lab Number : L2268107  
 Project Number : 4867.02  
 Calibration Date : 12/08/22 07:22  
 Init. Calib. Date(s) : 11/17/22 11/17/22  
 Init. Calib. Times : 14:19 19:05

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.288	0.27	-	6.2	20	96	0
2-Chloroethyl vinyl ether	0.143	0.137	-	4.2	20	90	0
Bromodichloromethane	0.348	0.335	-	3.7	20	95	0
1,4-Dioxane	0.00162	0.00148*	-	8.6	20	96	0
cis-1,3-Dichloropropene	0.423	0.412	-	2.6	20	95	0
Chlorobenzene-d5	1	1	-	0	20	113	0
Toluene-d8	1.334	1.294	-	3	20	110	0
Toluene	0.821	0.774	-	5.7	20	99	0
4-Methyl-2-pentanone	0.127	0.103	-	18.9	20	85	0
Tetrachloroethene	0.309	0.324	-	-4.9	20	104	0
trans-1,3-Dichloropropene	0.505	0.489	-	3.2	20	94	0
Ethyl methacrylate	0.392	0.359	-	8.4	20	90	0
1,1,2-Trichloroethane	0.237	0.211	-	11	20	92	0
Chlorodibromomethane	0.323	0.317	-	1.9	20	93	0
1,3-Dichloropropane	0.468	0.445	-	4.9	20	93	0
1,2-Dibromoethane	0.263	0.252	-	4.2	20	94	0
2-Hexanone	0.228	0.194	-	14.9	20	83	0
Chlorobenzene	0.903	0.876	-	3	20	95	0
Ethylbenzene	1.556	1.499	-	3.7	20	97	0
1,1,1,2-Tetrachloroethane	0.328	0.319	-	2.7	20	93	0
p/m Xylene	0.594	0.593	-	0.2	20	98	0
o Xylene	0.559	0.554	-	0.9	20	96	0
Styrene	0.943	0.924	-	2	20	94	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	117	0
Bromoform	0.373	0.349	-	6.4	20	94	0
Isopropylbenzene	3.028	2.81	-	7.2	20	99	0
4-Bromofluorobenzene	0.973	0.889	-	8.6	20	110	0
Bromobenzene	0.731	0.653	-	10.7	20	94	0
n-Propylbenzene	3.529	3.35	-	5.1	20	100	0
1,4-Dichlorobutane	1.022	0.877	-	14.2	20	88	0
1,1,2,2-Tetrachloroethane	0.664	0.592	-	10.8	20	95	0
4-Ethyltoluene	2.992	2.79	-	6.8	20	99	0
2-Chlorotoluene	2.145	1.957	-	8.8	20	97	0
1,3,5-Trimethylbenzene	2.58	2.419	-	6.2	20	99	0
1,2,3-Trichloropropane	0.524	0.48	-	8.4	20	93	0
trans-1,4-Dichloro-2-buten	0.234	0.203	-	13.2	20	90	0
4-Chlorotoluene	2.234	2.041	-	8.6	20	96	0
tert-Butylbenzene	2.192	2.07	-	5.6	20	100	0
1,2,4-Trimethylbenzene	2.562	2.406	-	6.1	20	98	0
sec-Butylbenzene	3.261	3.16	-	3.1	20	101	0
p-Isopropyltoluene	2.792	2.708	-	3	20	102	0
1,3-Dichlorobenzene	1.392	1.328	-	4.6	20	98	0
1,4-Dichlorobenzene	1.397	1.325	-	5.2	20	97	0

\* Value outside of QC limits.





## Calibration Verification Summary Form 7 Volatiles

Client	: Sanborn, Head & Associates, Inc.	Lab Number	: L2268107
Project Name	: 776 SUMMER ST.	Project Number	: 4867.02
Instrument ID	: VOA100	Calibration Date	: 12/08/22 07:22
Lab File ID	: V00221208A01	Init. Calib. Date(s)	: 11/17/22      11/17/22
Sample No	: WG1721378-2	Init. Calib. Times	: 14:19      19:05
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.677	1.637	-	2.4	20	102	0
n-Butylbenzene	2.442	2.433	-	0.4	20	105	0
1,2-Dichlorobenzene	1.292	1.223	-	5.3	20	96	0
1,2,4,5-Tetramethylbenzene	2.436	2.343	-	3.8	20	99	0
1,2-Dibromo-3-chloropropan	0.105	0.098	-	6.7	20	93	0
1,3,5-Trichlorobenzene	0.973	0.97	-	0.3	20	104	0
Hexachlorobutadiene	0.438	0.428	-	2.3	20	104	0
1,2,4-Trichlorobenzene	0.87	0.861	-	1	20	104	0
Naphthalene	1.828	1.724	-	5.7	20	96	0
1,2,3-Trichlorobenzene	0.797	0.77	-	3.4	20	102	0

---

\* Value outside of QC limits.





## ANALYTICAL REPORT

Lab Number:	L2271314
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.02
Report Date:	12/20/22

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508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2271314-01	SH-GP-316 (3)	SOIL	BOSTON, MA	12/05/22 07:55	12/05/22
L2271314-02	SH-GP-315 (3)	SOIL	BOSTON, MA	12/05/22 09:10	12/05/22

Project Name: 776 SUMMER ST.

Lab Number: L2271314

Project Number: 4867.02

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**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

L2271314-01 and -02: Initial calibration utilized a quadratic fit for: 1,1-dichloropropene, tetrachloroethene, p/m-xylene, o-xylene, styrene

In reference to question H:

L2271314-01 and -02: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: trichloroethene (0.1932), 1,2-dichloropropane (0.1580), bromodichloromethane (0.2614), 1,4-dioxane (0.0009), cis-1,3-dichloropropene (0.2178), trans-1,3-dichloropropene (0.2475), 1,1,2-trichloroethane (0.1560), 1,2-dibromoethane (0.1740)

Average Response Factor: 1,2-dichloropropane, 1,4-dioxane, 1,1,2-trichloroethane

Verification: dichlorodifluoromethane (145%), carbon disulfide (151%)

L2271314-01 and -02: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

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

Authorized Signature:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 12/20/22

## QC OUTLIER SUMMARY REPORT

**Project Name:** 776 SUMMER ST.

**Lab Number:** L2271314

**Project Number:** 4867.02

**Report Date:** 12/20/22

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics by EPA 5035 Low - Westborough Lab								
8260D	Batch QC	WG1725525-3	Trichlorofluoromethane	LCS	69	70-130	01-02	potential low bias
8260D	Batch QC	WG1725525-3	Bromomethane	LCS	62	70-130	01-02	potential low bias
8260D	Batch QC	WG1725525-3	Diethyl ether	LCS	65	70-130	01-02	potential low bias
8260D	Batch QC	WG1725525-4	Trichlorofluoromethane	LCSD	69	70-130	01-02	potential low bias
8260D	Batch QC	WG1725525-4	Bromomethane	LCSD	61	70-130	01-02	potential low bias
8260D	Batch QC	WG1725525-4	Diethyl ether	LCSD	66	70-130	01-02	potential low bias

# ORGANICS



# VOLATILES

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

**SAMPLE RESULTS**

Lab ID: L2271314-01  
 Client ID: SH-GP-316 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 07:55  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/19/22 21:15  
 Analyst: AJK  
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.2	--	1
1,1-Dichloroethane	ND		ug/kg	1.0	--	1
Chloroform	ND		ug/kg	1.5	--	1
Carbon tetrachloride	ND		ug/kg	1.0	--	1
1,2-Dichloropropane	ND		ug/kg	1.0	--	1
Dibromochloromethane	ND		ug/kg	1.0	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	--	1
Tetrachloroethene	1.1		ug/kg	0.52	--	1
Chlorobenzene	ND		ug/kg	0.52	--	1
Trichlorofluoromethane	ND		ug/kg	4.1	--	1
1,2-Dichloroethane	ND		ug/kg	1.0	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	--	1
Bromodichloromethane	ND		ug/kg	0.52	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.52	--	1
1,1-Dichloropropene	ND		ug/kg	0.52	--	1
Bromoform	ND		ug/kg	4.1	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	--	1
Benzene	ND		ug/kg	0.52	--	1
Toluene	ND		ug/kg	1.0	--	1
Ethylbenzene	ND		ug/kg	1.0	--	1
Chloromethane	ND		ug/kg	4.1	--	1
Bromomethane	ND		ug/kg	2.1	--	1
Vinyl chloride	ND		ug/kg	1.0	--	1
Chloroethane	ND		ug/kg	2.1	--	1
1,1-Dichloroethene	ND		ug/kg	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2271314

Project Number: 4867.02

Report Date: 12/20/22

## SAMPLE RESULTS

Lab ID: L2271314-01  
 Client ID: SH-GP-316 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 07:55  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	1.3		ug/kg	0.52	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	--	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	--	1
Methyl tert butyl ether	ND		ug/kg	2.1	--	1
p/m-Xylene	ND		ug/kg	2.1	--	1
o-Xylene	ND		ug/kg	1.0	--	1
Xylenes, Total	ND		ug/kg	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--	1
Dibromomethane	ND		ug/kg	2.1	--	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	--	1
Styrene	ND		ug/kg	1.0	--	1
Dichlorodifluoromethane	ND		ug/kg	10	--	1
Acetone	ND		ug/kg	26	--	1
Carbon disulfide	ND		ug/kg	10	--	1
Methyl ethyl ketone	ND		ug/kg	10	--	1
Methyl isobutyl ketone	ND		ug/kg	10	--	1
2-Hexanone	ND		ug/kg	10	--	1
Bromochloromethane	ND		ug/kg	2.1	--	1
Tetrahydrofuran	ND		ug/kg	4.1	--	1
2,2-Dichloropropane	ND		ug/kg	2.1	--	1
1,2-Dibromoethane	ND		ug/kg	1.0	--	1
1,3-Dichloropropane	ND		ug/kg	2.1	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.52	--	1
Bromobenzene	ND		ug/kg	2.1	--	1
n-Butylbenzene	ND		ug/kg	1.0	--	1
sec-Butylbenzene	ND		ug/kg	1.0	--	1
tert-Butylbenzene	ND		ug/kg	2.1	--	1
o-Chlorotoluene	ND		ug/kg	2.1	--	1
p-Chlorotoluene	ND		ug/kg	2.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	--	1
Hexachlorobutadiene	ND		ug/kg	4.1	--	1
Isopropylbenzene	ND		ug/kg	1.0	--	1
p-Isopropyltoluene	ND		ug/kg	1.0	--	1
Naphthalene	ND		ug/kg	4.1	--	1
n-Propylbenzene	ND		ug/kg	1.0	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

**SAMPLE RESULTS**

**Lab ID:** L2271314-01  
**Client ID:** SH-GP-316 (3)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/05/22 07:55  
**Date Received:** 12/05/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	--	1
Diethyl ether	ND		ug/kg	2.1	--	1
Diisopropyl Ether	ND		ug/kg	2.1	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.1	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.1	--	1
1,4-Dioxane	ND		ug/kg	82	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	108		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

**SAMPLE RESULTS**

Lab ID: L2271314-02  
 Client ID: SH-GP-315 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 09:10  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 12/19/22 20:48  
 Analyst: AJK  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	3.5	--	1
1,1-Dichloroethane	ND		ug/kg	0.69	--	1
Chloroform	ND		ug/kg	1.0	--	1
Carbon tetrachloride	ND		ug/kg	0.69	--	1
1,2-Dichloropropane	ND		ug/kg	0.69	--	1
Dibromochloromethane	ND		ug/kg	0.69	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.69	--	1
Tetrachloroethene	ND		ug/kg	0.35	--	1
Chlorobenzene	ND		ug/kg	0.35	--	1
Trichlorofluoromethane	ND		ug/kg	2.8	--	1
1,2-Dichloroethane	ND		ug/kg	0.69	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.35	--	1
Bromodichloromethane	ND		ug/kg	0.35	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.69	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.35	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.35	--	1
1,1-Dichloropropene	ND		ug/kg	0.35	--	1
Bromoform	ND		ug/kg	2.8	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.35	--	1
Benzene	ND		ug/kg	0.35	--	1
Toluene	ND		ug/kg	0.69	--	1
Ethylbenzene	ND		ug/kg	0.69	--	1
Chloromethane	ND		ug/kg	2.8	--	1
Bromomethane	ND		ug/kg	1.4	--	1
Vinyl chloride	ND		ug/kg	0.69	--	1
Chloroethane	ND		ug/kg	1.4	--	1
1,1-Dichloroethene	ND		ug/kg	0.69	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.0	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

**SAMPLE RESULTS**

**Lab ID:** L2271314-02  
**Client ID:** SH-GP-315 (3)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/05/22 09:10  
**Date Received:** 12/05/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	0.47		ug/kg	0.35	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.4	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.4	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.4	--	1
Methyl tert butyl ether	ND		ug/kg	1.4	--	1
p/m-Xylene	ND		ug/kg	1.4	--	1
o-Xylene	ND		ug/kg	0.69	--	1
Xylenes, Total	ND		ug/kg	0.69	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.69	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.69	--	1
Dibromomethane	ND		ug/kg	1.4	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.4	--	1
Styrene	ND		ug/kg	0.69	--	1
Dichlorodifluoromethane	ND		ug/kg	6.9	--	1
Acetone	ND		ug/kg	17	--	1
Carbon disulfide	ND		ug/kg	6.9	--	1
Methyl ethyl ketone	ND		ug/kg	6.9	--	1
Methyl isobutyl ketone	ND		ug/kg	6.9	--	1
2-Hexanone	ND		ug/kg	6.9	--	1
Bromochloromethane	ND		ug/kg	1.4	--	1
Tetrahydrofuran	ND		ug/kg	2.8	--	1
2,2-Dichloropropane	ND		ug/kg	1.4	--	1
1,2-Dibromoethane	ND		ug/kg	0.69	--	1
1,3-Dichloropropane	ND		ug/kg	1.4	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.35	--	1
Bromobenzene	ND		ug/kg	1.4	--	1
n-Butylbenzene	ND		ug/kg	0.69	--	1
sec-Butylbenzene	ND		ug/kg	0.69	--	1
tert-Butylbenzene	ND		ug/kg	1.4	--	1
o-Chlorotoluene	ND		ug/kg	1.4	--	1
p-Chlorotoluene	ND		ug/kg	1.4	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.1	--	1
Hexachlorobutadiene	ND		ug/kg	2.8	--	1
Isopropylbenzene	ND		ug/kg	0.69	--	1
p-Isopropyltoluene	ND		ug/kg	0.69	--	1
Naphthalene	ND		ug/kg	2.8	--	1
n-Propylbenzene	ND		ug/kg	0.69	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

**SAMPLE RESULTS**

**Lab ID:** L2271314-02  
**Client ID:** SH-GP-315 (3)  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/05/22 09:10  
**Date Received:** 12/05/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.4	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.4	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.4	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.4	--	1
Diethyl ether	ND		ug/kg	1.4	--	1
Diisopropyl Ether	ND		ug/kg	1.4	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.4	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.4	--	1
1,4-Dioxane	ND		ug/kg	55	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	106		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

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

Analytical Method: 141,8260D  
Analytical Date: 12/19/22 20:22  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1725525-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

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

Analytical Method: 141,8260D  
Analytical Date: 12/19/22 20:22  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1725525-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 12/19/22 20:22  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1725525-5					
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
Diethyl ether	ND		ug/kg	2.0	--
Diisopropyl Ether	ND		ug/kg	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2271314

Project Number: 4867.02

Report Date: 12/20/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1725525-3 WG1725525-4								
Methylene chloride	91		91		70-130	0		20
1,1-Dichloroethane	109		108		70-130	1		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	95		95		70-130	0		20
1,2-Dichloropropane	107		107		70-130	0		20
Dibromochloromethane	97		96		70-130	1		20
1,1,2-Trichloroethane	101		102		70-130	1		20
Tetrachloroethene	104		102		70-130	2		20
Chlorobenzene	103		103		70-130	0		20
Trichlorofluoromethane	69	Q	69	Q	70-130	0		20
1,2-Dichloroethane	99		100		70-130	1		20
1,1,1-Trichloroethane	112		111		70-130	1		20
Bromodichloromethane	99		100		70-130	1		20
trans-1,3-Dichloropropene	112		111		70-130	1		20
cis-1,3-Dichloropropene	114		114		70-130	0		20
1,1-Dichloropropene	113		113		70-130	0		20
Bromoform	96		96		70-130	0		20
1,1,2,2-Tetrachloroethane	101		102		70-130	1		20
Benzene	109		109		70-130	0		20
Toluene	107		107		70-130	0		20
Ethylbenzene	115		114		70-130	1		20
Chloromethane	113		113		70-130	0		20
Bromomethane	62	Q	61	Q	70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2271314

Report Date: 12/20/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1725525-3 WG1725525-4								
Vinyl chloride	91		90		70-130	1		20
Chloroethane	72		72		70-130	0		20
1,1-Dichloroethene	76		74		70-130	3		20
trans-1,2-Dichloroethene	107		107		70-130	0		20
Trichloroethene	110		111		70-130	1		20
1,2-Dichlorobenzene	103		102		70-130	1		20
1,3-Dichlorobenzene	106		104		70-130	2		20
1,4-Dichlorobenzene	103		101		70-130	2		20
Methyl tert butyl ether	106		107		70-130	1		20
p/m-Xylene	102		101		70-130	1		20
o-Xylene	100		98		70-130	2		20
cis-1,2-Dichloroethene	102		102		70-130	0		20
Dibromomethane	94		94		70-130	0		20
1,2,3-Trichloropropane	103		103		70-130	0		20
Styrene	98		98		70-130	0		20
Dichlorodifluoromethane	121		122		70-130	1		20
Acetone	113		115		70-130	2		20
Carbon disulfide	77		76		70-130	1		20
Methyl ethyl ketone	97		99		70-130	2		20
Methyl isobutyl ketone	93		96		70-130	3		20
2-Hexanone	103		106		70-130	3		20
Bromochloromethane	94		95		70-130	1		20
Tetrahydrofuran	107		112		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2271314

Project Number: 4867.02

Report Date: 12/20/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1725525-3 WG1725525-4								
2,2-Dichloropropane	116		115		70-130	1		20
1,2-Dibromoethane	104		103		70-130	1		20
1,3-Dichloropropane	104		105		70-130	1		20
1,1,1,2-Tetrachloroethane	100		100		70-130	0		20
Bromobenzene	102		101		70-130	1		20
n-Butylbenzene	111		110		70-130	1		20
sec-Butylbenzene	105		104		70-130	1		20
tert-Butylbenzene	113		112		70-130	1		20
o-Chlorotoluene	116		114		70-130	2		20
p-Chlorotoluene	116		115		70-130	1		20
1,2-Dibromo-3-chloropropane	96		97		70-130	1		20
Hexachlorobutadiene	112		111		70-130	1		20
Isopropylbenzene	102		101		70-130	1		20
p-Isopropyltoluene	102		101		70-130	1		20
Naphthalene	107		108		70-130	1		20
n-Propylbenzene	106		106		70-130	0		20
1,2,3-Trichlorobenzene	108		108		70-130	0		20
1,2,4-Trichlorobenzene	114		114		70-130	0		20
1,3,5-Trimethylbenzene	112		110		70-130	2		20
1,2,4-Trimethylbenzene	112		112		70-130	0		20
Diethyl ether	65	Q	66	Q	70-130	2		20
Diisopropyl Ether	121		123		70-130	2		20
Ethyl-Tert-Butyl-Ether	114		116		70-130	2		20

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1725525-3 WG1725525-4								
Tertiary-Amyl Methyl Ether	109		110		70-130	1		20
1,4-Dioxane	103		103		70-130	0		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	107		106		70-130
Dibromofluoromethane	94		94		70-130

# **INORGANICS & MISCELLANEOUS**

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2271314

Report Date: 12/20/22

## SAMPLE RESULTS

Lab ID: L2271314-01

Client ID: SH-GP-316 (3)

Sample Location: BOSTON, MA

Date Collected: 12/05/22 07:55

Date Received: 12/05/22

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.8		%	0.100	NA	1	-	12/19/22 16:35	121,2540G	MF





Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2271314

Report Date: 12/20/22

## SAMPLE RESULTS

Lab ID: L2271314-02  
 Client ID: SH-GP-315 (3)  
 Sample Location: BOSTON, MA

Date Collected: 12/05/22 09:10  
 Date Received: 12/05/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.1		%	0.100	NA	1	-	12/19/22 16:35	121,2540G	MF



**Project Name:** 776 SUMMER ST.**Lab Number:** L2271314**Project Number:** 4867.02**Report Date:** 12/20/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2271314-01A	Vial MeOH preserved	A	NA		5.2	Y	Absent		MCP-8260HLW-21(14)
L2271314-01B	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)
L2271314-01C	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)
L2271314-01D	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		TS(7)
L2271314-02A	Vial MeOH preserved	A	NA		5.2	Y	Absent		MCP-8260HLW-21(14)
L2271314-02B	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)
L2271314-02C	Vial water preserved	A	NA		5.2	Y	Absent	05-DEC-22 23:24	MCP-8260HLW-21(14)
L2271314-02D	Plastic 2oz unpreserved for TS	A	NA		5.2	Y	Absent		TS(7)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

#### Footnotes

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

#### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.**Lab Number:** L2271314**Project Number:** 4867.02**Report Date:** 12/20/22**Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2271314  
**Report Date:** 12/20/22

## REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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**

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

L2271314



**CHAIN OF CUSTODY**

PAGE 1 OF 2

Date Rec'd in Lab: 12/5/22 ALPHA Job #: L2268107 12/19/22

8 Walkup Drive Westboro, MA 01581 Tel: 508-896-9220  
320 Forbes Blvd Mansfield, MA 02048 Tel: 508-822-9300

**Project Information**  
Project Name: 776 Summer St  
Project Location: Boston, MA  
Project #: 4861.02  
Project Manager: A. Cohen  
ALPHA Quote #:

**Report Information - Data Deliverables**  
 ADEX  EMAIL  Same as Client info PO #:

**Client Information**  
Client: Sanborn Head  
Address: 98 North Washington St. Boston, MA  
Phone: 857-327-9736  
Email: ACohen@Sanbornhead.com  
H.Chid@Sanbornhead.com  
Additional Project Information: Sianarre@Sanbornhead.com

**Turn-Around Time**  
 Standard  RUSH (only confirmed if pre-approved)  
Date Due:

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

ANALYSIS	VOC: <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 624.2	SAMPLE INFO	TOTAL BOTTLES
	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH		
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	Metals: <input type="checkbox"/> RCR45 <input type="checkbox"/> RCR48 <input type="checkbox"/> PP13	Filtration	
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Field	
<input type="checkbox"/> PCB	<input type="checkbox"/> PEST	<input type="checkbox"/> Lab to do	
<input type="checkbox"/> TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		Preservation	
		<input type="checkbox"/> Lab to do	
		Sample Comments	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS	SAMPLE INFO	TOTAL BOTTLES
		Date	Time					
65107-01	SH-GP-316 (3)	12/5/22	755	SO	SM LGM		Hold	4
<del>02</del>	SH-GP-316 (16.5-20)		820			H	*H=Hold	1
<del>03</del>	SH-GP-316 (18)		825			H	*H=Hold	2
71314-02 <del>04</del>	SH-GP-315 (3)		910				Hold	4
<del>05</del>	SH-GP-315 (18.4-20)		945			H	Hold	2
<del>06</del>	SH-GP-315 (19)		940			H	Hold	2
<del>07</del>	SH-GP-313 (3)		1035		X			4
<del>08</del>	SH-GP-313 (15.5)		1055			X		2
<del>09</del>	SH-GP-313 (13-18)		1045			X		1
10	SH-GP-307 (6)		1345		X			4

- Container Type**  
P= Plastic  
A= Amber glass  
V= Vial  
G= Glass  
B= Bacteria cup  
C= Cube  
O= Other  
E= Encore  
D= BOD Bottle
- Preservative**  
A= None  
B= HCl  
C= HNO3  
D= H2SO4  
E= NaOH  
F= MeOH  
G= NaHSO4  
H= Na2S2O8  
I= Ascorbic Acid  
J= NH4Cl  
K= Zn Acetate  
O= Other

Relinquished By: <i>[Signature]</i>	Date/Time: 12-5 1533	Received By: <i>[Signature]</i>	Date/Time: 12-5 1533
Relinquished By: <i>[Signature]</i>	Date/Time: 12-5 1755	Received By: <i>[Signature]</i>	Date/Time: 12-5 1755

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



# Method Blank Summary

## Form 4

### Volatiles

Client : Sanborn, Head & Associates, Inc.      Lab Number : L2271314  
Project Name : 776 SUMMER ST.      Project Number : 4867.02  
Lab Sample ID : WG1725525-5      Lab File ID : V17221219N05  
Instrument ID : VOA117  
Matrix : SOIL      Analysis Date : 12/19/22 20:22

Client Sample No.	Lab Sample ID	Analysis Date
WG1725525-3LCS	WG1725525-3	12/19/22 19:02
WG1725525-4LCSD	WG1725525-4	12/19/22 19:29
SH-GP-315 (3)	L2271314-02	12/19/22 20:48
SH-GP-316 (3)	L2271314-01	12/19/22 21:15

# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA117  
 Lab File ID : V17221219N01  
 Sample No : WG1725525-2  
 Channel :

Lab Number : L2271314  
 Project Number : 4867.02  
 Calibration Date : 12/19/22 18:36  
 Init. Calib. Date(s) : 11/21/22 11/22/22  
 Init. Calib. Times : 21:27 02:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	124	0
Dichlorodifluoromethane	0.177	0.217	-	-22.6*	20	139	0
Chloromethane	0.202	0.232	-	-14.9	20	141	0
Vinyl chloride	0.265	0.241	-	9.1	20	107	0
Bromomethane	0.311	0.198	-	36.3*	20	83	0
Chloroethane	0.237	0.169	-	28.7*	20	91	0
Trichlorofluoromethane	0.519	0.357	-	31.2*	20	83	0
Ethyl ether	0.134	0.089	-	33.6*	20	86	0
1,1-Dichloroethene	0.3	0.22	-	26.7*	20	89	0
Carbon disulfide	0.638	0.479	-	24.9*	20	97	0
Freon-113	0.326	0.263	-	19.3	20	94	0
Acrolein	0.018	0.02	-	-11.1	20	126	0
Methylene chloride	0.263	0.24	-	8.7	20	123	0
Acetone	40	45.444	-	-13.6	20	134	0
trans-1,2-Dichloroethene	0.238	0.256	-	-7.6	20	128	0
Methyl acetate	0.077	0.08	-	-3.9	20	137	0
Methyl tert-butyl ether	0.412	0.435	-	-5.6	20	127	0
tert-Butyl alcohol	0.013	0.013	-	0	20	122	0
Diisopropyl ether	0.473	0.575	-	-21.6*	20	140	0
1,1-Dichloroethane	0.379	0.412	-	-8.7	20	134	0
Halothane	0.187	0.204	-	-9.1	20	126	0
Acrylonitrile	0.035	0.038	-	-8.6	20	130	0
Ethyl tert-butyl ether	0.488	0.563	-	-15.4	20	133	0
Vinyl acetate	0.265	0.328	-	-23.8*	20	142	0
cis-1,2-Dichloroethene	0.257	0.26	-	-1.2	20	124	0
2,2-Dichloropropane	0.318	0.369	-	-16	20	136	0
Bromochloromethane	0.127	0.119	-	6.3	20	114	0
Cyclohexane	40	44.45	-	-11.1	20	142	0
Chloroform	0.437	0.436	-	0.2	20	123	0
Ethyl acetate	0.102	0.113	-	-10.8	20	133	0
Carbon tetrachloride	40	37.547	-	6.1	20	118	0
Tetrahydrofuran	40	44.592	-	-11.5	20	138	0
Dibromofluoromethane	0.28	0.264	-	5.7	20	119	0
1,1,1-Trichloroethane	0.333	0.371	-	-11.4	20	126	0
2-Butanone	40	40.292	-	-0.7	20	123	0
1,1-Dichloropropene	40	44.727	-	-11.8	20	135	0
Benzene	0.847	0.919	-	-8.5	20	126	0
tert-Amyl methyl ether	0.448	0.487	-	-8.7	20	123	0
1,2-Dichloroethane-d4	0.236	0.231	-	2.1	20	126	0
1,2-Dichloroethane	0.247	0.243	-	1.6	20	124	0
Methyl cyclohexane	40	39.575	-	1.1	20	129	0
Trichloroethene	0.241	0.259	-	-7.5	20	124	0
Dibromomethane	0.128	0.122	-	4.7	20	117	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA117  
 Lab File ID : V17221219N01  
 Sample No : WG1725525-2  
 Channel :

Lab Number : L2271314  
 Project Number : 4867.02  
 Calibration Date : 12/19/22 18:36  
 Init. Calib. Date(s) : 11/21/22 11/22/22  
 Init. Calib. Times : 21:27 02:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.198	0.211	-	-6.6	20	129	0
2-Chloroethyl vinyl ether	0.074	0.078	-	-5.4	20	127	0
Bromodichloromethane	0.303	0.302	-	0.3	20	120	0
1,4-Dioxane	0.0014	0.00145*	-	-3.6	20	117	0
cis-1,3-Dichloropropene	0.305	0.343	-	-12.5	20	125	0
Chlorobenzene-d5	1	1	-	0	20	121	0
Toluene-d8	1.25	1.297	-	-3.8	20	123	0
Toluene	0.727	0.782	-	-7.6	20	124	0
4-Methyl-2-pentanone	40	37.136	-	7.2	20	122	0
Tetrachloroethene	40	41.646	-	-4.1	20	123	0
trans-1,3-Dichloropropene	0.356	0.4	-	-12.4	20	124	0
Ethyl methacrylate	0.223	0.232	-	-4	20	121	0
1,1,2-Trichloroethane	0.186	0.189*	-	-1.6	20	118	-.01
Chlorodibromomethane	0.307	0.298	-	2.9	20	110	0
1,3-Dichloropropane	0.363	0.379	-	-4.4	20	120	0
1,2-Dibromoethane	0.214	0.219	-	-2.3	20	114	0
2-Hexanone	0.078	0.081	-	-3.8	20	125	0
Chlorobenzene	0.862	0.896	-	-3.9	20	119	0
Ethylbenzene	1.315	1.5	-	-14.1	20	123	0
1,1,1,2-Tetrachloroethane	0.324	0.324	-	0	20	110	0
p/m Xylene	80	81.52	-	-1.9	20	120	0
o Xylene	80	79.674	-	0.4	20	118	0
Styrene	80	78.343	-	2.1	20	116	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	112	0
Bromoform	0.35	0.336	-	4	20	101	0
Isopropylbenzene	40	40.024	-	-0.1	20	120	0
4-Bromofluorobenzene	0.695	0.726	-	-4.5	20	122	0
Bromobenzene	0.668	0.672	-	-0.6	20	110	0
n-Propylbenzene	40	42.105	-	-5.3	20	124	0
1,4-Dichlorobutane	0.465	0.54	-	-16.1	20	123	0
1,1,2,2-Tetrachloroethane	0.468	0.486	-	-3.8	20	110	0
4-Ethyltoluene	2.33	2.67	-	-14.6	20	121	0
2-Chlorotoluene	1.598	1.817	-	-13.7	20	121	0
1,3,5-Trimethylbenzene	2.072	2.302	-	-11.1	20	118	0
1,2,3-Trichloropropane	0.353	0.359	-	-1.7	20	111	0
trans-1,4-Dichloro-2-buten	0.097	0.122	-	-25.8*	20	127	0
4-Chlorotoluene	1.634	1.867	-	-14.3	20	119	0
tert-Butylbenzene	1.82	2.031	-	-11.6	20	115	0
1,2,4-Trimethylbenzene	2.023	2.242	-	-10.8	20	117	0
sec-Butylbenzene	40	41.236	-	-3.1	20	119	0
p-Isopropyltoluene	40	40.417	-	-1	20	118	0
1,3-Dichlorobenzene	1.33	1.403	-	-5.5	20	112	0
1,4-Dichlorobenzene	1.371	1.402	-	-2.3	20	113	0

\* Value outside of QC limits.



## Calibration Verification Summary Form 7 Volatiles

Client	: Sanborn, Head & Associates, Inc.	Lab Number	: L2271314
Project Name	: 776 SUMMER ST.	Project Number	: 4867.02
Instrument ID	: VOA117	Calibration Date	: 12/19/22 18:36
Lab File ID	: V17221219N01	Init. Calib. Date(s)	: 11/21/22      11/22/22
Sample No	: WG1725525-2	Init. Calib. Times	: 21:27      02:19
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	40	40.195	-	-0.5	20	118	0
n-Butylbenzene	40	44.192	-	-10.5	20	127	0
1,2-Dichlorobenzene	1.239	1.271	-	-2.6	20	109	0
1,2,4,5-Tetramethylbenzene	40	39.301	-	1.7	20	115	0
1,2-Dibromo-3-chloropropan	0.083	0.08	-	3.6	20	99	0
1,3,5-Trichlorobenzene	0.978	1.089	-	-11.3	20	117	0
Hexachlorobutadiene	0.481	0.531	-	-10.4	20	118	0
1,2,4-Trichlorobenzene	0.827	0.934	-	-12.9	20	117	0
Naphthalene	1.589	1.678	-	-5.6	20	106	0
1,2,3-Trichlorobenzene	0.76	0.818	-	-7.6	20	112	0

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\* Value outside of QC limits.





## ANALYTICAL REPORT

Lab Number:	L2273023
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.02
Report Date:	01/10/23

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2273023-01	SP-GRAVEL-A	SOIL	BOSTON, MA	12/30/22 08:45	12/30/22
L2273023-02	SP-GRAVEL-B	SOIL	BOSTON, MA	12/30/22 08:55	12/30/22
L2273023-03	SP-GRAVEL-C	SOIL	BOSTON, MA	12/30/22 09:35	12/30/22
L2273023-04	SP-GRAVEL-D	SOIL	BOSTON, MA	12/30/22 10:10	12/30/22
L2273023-05	SP-CONCRETE-A	SOLID	BOSTON, MA	12/30/22 11:20	12/30/22
L2273023-06	SP-CONCRETE-B	SOLID	BOSTON, MA	12/30/22 12:00	12/30/22

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### 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.

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**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### Case Narrative (continued)

#### MCP Related Narratives

##### Sample Receipt

In reference to question H:

A Matrix Spike was not submitted for the analysis of Total Metals.

#### Volatile Organics

L2273023-01 and -04: Initial calibration utilized a quadratic fit for: acetone

L2273023-02, -03, -05, and -06: A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question H:

L2273023-06: The surrogate recovery is below the acceptance criteria for dibromofluoromethane (68%), possibly due to the matrix effect caused by the high pH of the sample (>10).

L2273023-02, -03, -05, and -06: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: trichloroethene (0.1847), 1,4-dioxane (0.0024), 1,1,2-trichloroethane (0.1821)

Average Response Factor: 1,4-dioxane

Verification: carbon disulfide (134%)

L2273023-01 and -04: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: bromochloromethane (0.0946), trichloroethene (0.1859), bromodichloromethane (0.2629), 1,4-dioxane (0.0023)

Average Response Factor: 1,4-dioxane

Verification: acetone (158%)

L2273023-01 and -04: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### Case Narrative (continued)

#### Semivolatile Organics

L2273023-01, -03, and -04: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

L2273023-01, -02, -03, -04: The initial calibration utilized a quadratic fit for 2,4-Dinitrophenol.

WG1729157-1, WG1729157-2, WG1729157-3, WG1729299-1, WG1729299-2, and WG1729299-3: The initial calibration utilized a quadratic fit for 2,4-Dinitrophenol, 2,4,6-Tribromophenol, Pentachlorophenol.

In reference to question H:

L2273023-05: The surrogate recoveries were outside the acceptance criteria for 2-fluorophenol (6%) and 2,4,6-tribromophenol (3%); however, re-extraction achieved similar results: 2-fluorophenol (13%) and 2,4,6-tribromophenol (3%). The results of both extractions are reported; however, all associated compounds are considered to have a potential bias.

L2273023-06: The surrogate recoveries were outside the acceptance criteria for 2-fluorophenol (29%) and 2,4,6-tribromophenol (14%); however, re-extraction achieved similar results: 2-fluorophenol (17%) and 2,4,6-tribromophenol (4%). The results of both extractions are reported; however, all associated compounds are considered to have a potential bias.

#### PCBs

In reference to question G:

L2273023-04D: The sample has elevated detection limits due to limited sample volume available for analysis. One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

L2273023-04D: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

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### Case Narrative (continued)

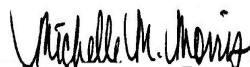
Non-MCP Related Narratives

Petroleum Hydrocarbon Quantitation

The WG1730756-3 Laboratory Duplicate RPD for TPH (C10-C36) (54%), performed on L2273023-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

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

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 01/10/23

## QC OUTLIER SUMMARY REPORT

**Project Name:** 776 SUMMER ST.

**Lab Number:** L2273023

**Project Number:** 4867.02

**Report Date:** 01/10/23

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics by EPA 5035 Low - Westborough Lab								
8260D	SP-CONCRETE-B	L2273023-06	Dibromofluoromethane	Surrogate	68	70-130	-	potential low bias
8260D	Batch QC	WG1731012-3	Dichlorodifluoromethane	LCS	64	70-130	01,04	potential low bias
8260D	Batch QC	WG1731012-3	Acetone	LCS	148	70-130	01,04	potential high bias
8260D	Batch QC	WG1731012-3	Carbon disulfide	LCS	43	70-130	01,04	potential low bias
8260D	Batch QC	WG1731012-4	Methylene chloride	LCSD	29	20	01,04	non-directional bias
8260D	Batch QC	WG1731012-4	Methylene chloride	LCSD	61	70-130	01,04	potential low bias
8260D	Batch QC	WG1731012-4	Dichlorodifluoromethane	LCSD	63	70-130	01,04	potential low bias
8260D	Batch QC	WG1731012-4	Carbon disulfide	LCSD	46	70-130	01,04	potential low bias
MCP Semivolatile Organics - Westborough Lab								
8270E	SP-CONCRETE-A	L2273023-05	2-Fluorophenol	Surrogate	6	31-118	-	potential low bias
8270E	SP-CONCRETE-A	L2273023-05	2,4,6-Tribromophenol	Surrogate	3	40-130	-	potential low bias
8270E	SP-CONCRETE-A	L2273023-05 RE	2-Fluorophenol	Surrogate	13	31-118	-	potential low bias
8270E	SP-CONCRETE-A	L2273023-05 RE	2,4,6-Tribromophenol	Surrogate	3	40-130	-	potential low bias
8270E	SP-CONCRETE-B	L2273023-06	2-Fluorophenol	Surrogate	29	31-118	-	potential low bias
8270E	SP-CONCRETE-B	L2273023-06	2,4,6-Tribromophenol	Surrogate	14	40-130	-	potential low bias
8270E	SP-CONCRETE-B	L2273023-06 RE	2-Fluorophenol	Surrogate	17	31-118	-	potential low bias
8270E	SP-CONCRETE-B	L2273023-06 RE	2,4,6-Tribromophenol	Surrogate	4	40-130	-	potential low bias
8270E	Batch QC	WG1731028-2	Pyridine	LCS	37	40-140	05-06	potential low bias
8270E	Batch QC	WG1731028-3	Pyridine	LCSD	31	40-140	05-06	potential low bias
Petroleum Hydrocarbon Quantitation - Westborough Lab								
8015D(M)	Batch QC (L2273023-01)	WG1730756-3	TPH (C10-C36)	Duplicate	54	40	01	non-directional bias
MCP Polychlorinated Biphenyls - Westborough Lab								
8082A	SP-GRAVEL-D	L2273023-04 D	2,4,5,6-Tetrachloro-m-xylene (A)	Surrogate	0	30-150	-	-- not applicable --
8082A	SP-GRAVEL-D	L2273023-04 D	2,4,5,6-Tetrachloro-m-xylene (B)	Surrogate	0	30-150	-	-- not applicable --
8082A	SP-GRAVEL-D	L2273023-04 D	Decachlorobiphenyl (A)	Surrogate	0	30-150	-	-- not applicable --
8082A	SP-GRAVEL-D	L2273023-04 D	Decachlorobiphenyl (B)	Surrogate	0	30-150	-	-- not applicable --

# ORGANICS

# VOLATILES

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 01/06/23 15:14  
 Analyst: LAC  
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.5	--	1
1,1-Dichloroethane	ND		ug/kg	1.3	--	1
Chloroform	ND		ug/kg	2.0	--	1
Carbon tetrachloride	ND		ug/kg	1.3	--	1
1,2-Dichloropropane	ND		ug/kg	1.3	--	1
Dibromochloromethane	ND		ug/kg	1.3	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	--	1
Tetrachloroethene	ND		ug/kg	0.65	--	1
Chlorobenzene	ND		ug/kg	0.65	--	1
Trichlorofluoromethane	ND		ug/kg	5.2	--	1
1,2-Dichloroethane	ND		ug/kg	1.3	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.65	--	1
Bromodichloromethane	ND		ug/kg	0.65	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.65	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.65	--	1
1,1-Dichloropropene	ND		ug/kg	0.65	--	1
Bromoform	ND		ug/kg	5.2	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.65	--	1
Benzene	ND		ug/kg	0.65	--	1
Toluene	ND		ug/kg	1.3	--	1
Ethylbenzene	ND		ug/kg	1.3	--	1
Chloromethane	ND		ug/kg	5.2	--	1
Bromomethane	ND		ug/kg	2.6	--	1
Vinyl chloride	ND		ug/kg	1.3	--	1
Chloroethane	ND		ug/kg	2.6	--	1
1,1-Dichloroethene	ND		ug/kg	1.3	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.65	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	2.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.6	--	1
Methyl tert butyl ether	ND		ug/kg	2.6	--	1
p/m-Xylene	ND		ug/kg	2.6	--	1
o-Xylene	ND		ug/kg	1.3	--	1
Xylenes, Total	ND		ug/kg	1.3	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	--	1
Dibromomethane	ND		ug/kg	2.6	--	1
1,2,3-Trichloropropane	ND		ug/kg	2.6	--	1
Styrene	ND		ug/kg	1.3	--	1
Dichlorodifluoromethane	ND		ug/kg	13	--	1
Acetone	ND		ug/kg	33	--	1
Carbon disulfide	ND		ug/kg	13	--	1
Methyl ethyl ketone	ND		ug/kg	13	--	1
Methyl isobutyl ketone	ND		ug/kg	13	--	1
2-Hexanone	ND		ug/kg	13	--	1
Bromochloromethane	ND		ug/kg	2.6	--	1
Tetrahydrofuran	ND		ug/kg	5.2	--	1
2,2-Dichloropropane	ND		ug/kg	2.6	--	1
1,2-Dibromoethane	ND		ug/kg	1.3	--	1
1,3-Dichloropropane	ND		ug/kg	2.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.65	--	1
Bromobenzene	ND		ug/kg	2.6	--	1
n-Butylbenzene	ND		ug/kg	1.3	--	1
sec-Butylbenzene	ND		ug/kg	1.3	--	1
tert-Butylbenzene	ND		ug/kg	2.6	--	1
o-Chlorotoluene	ND		ug/kg	2.6	--	1
p-Chlorotoluene	ND		ug/kg	2.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.9	--	1
Hexachlorobutadiene	ND		ug/kg	5.2	--	1
Isopropylbenzene	ND		ug/kg	1.3	--	1
p-Isopropyltoluene	ND		ug/kg	1.3	--	1
Naphthalene	ND		ug/kg	5.2	--	1
n-Propylbenzene	ND		ug/kg	1.3	--	1



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-01  
**Client ID:** SP-GRAVEL-A  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 08:45  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	2.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.6	--	1
Diethyl ether	ND		ug/kg	2.6	--	1
Diisopropyl Ether	ND		ug/kg	2.6	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.6	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.6	--	1
1,4-Dioxane	ND		ug/kg	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	115		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-02  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 01/04/23 14:45  
 Analyst: AJK  
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.2	--	1
1,1-Dichloroethane	ND		ug/kg	0.84	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.84	--	1
1,2-Dichloropropane	ND		ug/kg	0.84	--	1
Dibromochloromethane	ND		ug/kg	0.84	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.84	--	1
Tetrachloroethene	ND		ug/kg	0.42	--	1
Chlorobenzene	ND		ug/kg	0.42	--	1
Trichlorofluoromethane	ND		ug/kg	3.4	--	1
1,2-Dichloroethane	ND		ug/kg	0.84	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.42	--	1
Bromodichloromethane	ND		ug/kg	0.42	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.84	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.42	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.42	--	1
1,1-Dichloropropene	ND		ug/kg	0.42	--	1
Bromoform	ND		ug/kg	3.4	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.42	--	1
Benzene	ND		ug/kg	0.42	--	1
Toluene	ND		ug/kg	0.84	--	1
Ethylbenzene	ND		ug/kg	0.84	--	1
Chloromethane	ND		ug/kg	3.4	--	1
Bromomethane	ND		ug/kg	1.7	--	1
Vinyl chloride	ND		ug/kg	0.84	--	1
Chloroethane	ND		ug/kg	1.7	--	1
1,1-Dichloroethene	ND		ug/kg	0.84	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-02  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.42	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.7	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.7	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.7	--	1
Methyl tert butyl ether	ND		ug/kg	1.7	--	1
p/m-Xylene	ND		ug/kg	1.7	--	1
o-Xylene	ND		ug/kg	0.84	--	1
Xylenes, Total	ND		ug/kg	0.84	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.84	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.84	--	1
Dibromomethane	ND		ug/kg	1.7	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.7	--	1
Styrene	ND		ug/kg	0.84	--	1
Dichlorodifluoromethane	ND		ug/kg	8.4	--	1
Acetone	ND		ug/kg	21	--	1
Carbon disulfide	ND		ug/kg	8.4	--	1
Methyl ethyl ketone	ND		ug/kg	8.4	--	1
Methyl isobutyl ketone	ND		ug/kg	8.4	--	1
2-Hexanone	ND		ug/kg	8.4	--	1
Bromochloromethane	ND		ug/kg	1.7	--	1
Tetrahydrofuran	ND		ug/kg	3.4	--	1
2,2-Dichloropropane	ND		ug/kg	1.7	--	1
1,2-Dibromoethane	ND		ug/kg	0.84	--	1
1,3-Dichloropropane	ND		ug/kg	1.7	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.42	--	1
Bromobenzene	ND		ug/kg	1.7	--	1
n-Butylbenzene	ND		ug/kg	0.84	--	1
sec-Butylbenzene	ND		ug/kg	0.84	--	1
tert-Butylbenzene	ND		ug/kg	1.7	--	1
o-Chlorotoluene	ND		ug/kg	1.7	--	1
p-Chlorotoluene	ND		ug/kg	1.7	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.5	--	1
Hexachlorobutadiene	ND		ug/kg	3.4	--	1
Isopropylbenzene	ND		ug/kg	0.84	--	1
p-Isopropyltoluene	ND		ug/kg	0.84	--	1
Naphthalene	8.7		ug/kg	3.4	--	1
n-Propylbenzene	ND		ug/kg	0.84	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-02  
**Client ID:** SP-GRAVEL-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 08:55  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.7	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.7	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.7	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.7	--	1
Diethyl ether	ND		ug/kg	1.7	--	1
Diisopropyl Ether	ND		ug/kg	1.7	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.7	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.7	--	1
1,4-Dioxane	ND		ug/kg	67	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	121		70-130
Dibromofluoromethane	106		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-03  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 01/04/23 15:04  
 Analyst: AJK  
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.2	--	1
1,1-Dichloroethane	ND		ug/kg	0.84	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.84	--	1
1,2-Dichloropropane	ND		ug/kg	0.84	--	1
Dibromochloromethane	ND		ug/kg	0.84	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.84	--	1
Tetrachloroethene	ND		ug/kg	0.42	--	1
Chlorobenzene	ND		ug/kg	0.42	--	1
Trichlorofluoromethane	ND		ug/kg	3.4	--	1
1,2-Dichloroethane	ND		ug/kg	0.84	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.42	--	1
Bromodichloromethane	ND		ug/kg	0.42	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.84	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.42	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.42	--	1
1,1-Dichloropropene	ND		ug/kg	0.42	--	1
Bromoform	ND		ug/kg	3.4	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.42	--	1
Benzene	ND		ug/kg	0.42	--	1
Toluene	ND		ug/kg	0.84	--	1
Ethylbenzene	ND		ug/kg	0.84	--	1
Chloromethane	ND		ug/kg	3.4	--	1
Bromomethane	ND		ug/kg	1.7	--	1
Vinyl chloride	ND		ug/kg	0.84	--	1
Chloroethane	ND		ug/kg	1.7	--	1
1,1-Dichloroethene	ND		ug/kg	0.84	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-03  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.42	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.7	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.7	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.7	--	1
Methyl tert butyl ether	ND		ug/kg	1.7	--	1
p/m-Xylene	ND		ug/kg	1.7	--	1
o-Xylene	ND		ug/kg	0.84	--	1
Xylenes, Total	ND		ug/kg	0.84	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.84	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.84	--	1
Dibromomethane	ND		ug/kg	1.7	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.7	--	1
Styrene	ND		ug/kg	0.84	--	1
Dichlorodifluoromethane	ND		ug/kg	8.4	--	1
Acetone	ND		ug/kg	21	--	1
Carbon disulfide	ND		ug/kg	8.4	--	1
Methyl ethyl ketone	ND		ug/kg	8.4	--	1
Methyl isobutyl ketone	ND		ug/kg	8.4	--	1
2-Hexanone	ND		ug/kg	8.4	--	1
Bromochloromethane	ND		ug/kg	1.7	--	1
Tetrahydrofuran	ND		ug/kg	3.4	--	1
2,2-Dichloropropane	ND		ug/kg	1.7	--	1
1,2-Dibromoethane	ND		ug/kg	0.84	--	1
1,3-Dichloropropane	ND		ug/kg	1.7	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.42	--	1
Bromobenzene	ND		ug/kg	1.7	--	1
n-Butylbenzene	ND		ug/kg	0.84	--	1
sec-Butylbenzene	ND		ug/kg	0.84	--	1
tert-Butylbenzene	ND		ug/kg	1.7	--	1
o-Chlorotoluene	ND		ug/kg	1.7	--	1
p-Chlorotoluene	ND		ug/kg	1.7	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.5	--	1
Hexachlorobutadiene	ND		ug/kg	3.4	--	1
Isopropylbenzene	ND		ug/kg	0.84	--	1
p-Isopropyltoluene	ND		ug/kg	0.84	--	1
Naphthalene	17		ug/kg	3.4	--	1
n-Propylbenzene	ND		ug/kg	0.84	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-03  
**Client ID:** SP-GRAVEL-C  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 09:35  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.7	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.7	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.7	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.7	--	1
Diethyl ether	ND		ug/kg	1.7	--	1
Diisopropyl Ether	ND		ug/kg	1.7	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.7	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.7	--	1
1,4-Dioxane	ND		ug/kg	67	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	121		70-130
Dibromofluoromethane	107		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-04  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8260D  
 Analytical Date: 01/06/23 14:47  
 Analyst: LAC  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.4	--	1
1,1-Dichloroethane	ND		ug/kg	0.88	--	1
Chloroform	ND		ug/kg	1.3	--	1
Carbon tetrachloride	ND		ug/kg	0.88	--	1
1,2-Dichloropropane	ND		ug/kg	0.88	--	1
Dibromochloromethane	ND		ug/kg	0.88	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.88	--	1
Tetrachloroethene	ND		ug/kg	0.44	--	1
Chlorobenzene	ND		ug/kg	0.44	--	1
Trichlorofluoromethane	ND		ug/kg	3.5	--	1
1,2-Dichloroethane	ND		ug/kg	0.88	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	--	1
Bromodichloromethane	ND		ug/kg	0.44	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.88	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	--	1
1,1-Dichloropropene	ND		ug/kg	0.44	--	1
Bromoform	ND		ug/kg	3.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	--	1
Benzene	ND		ug/kg	0.44	--	1
Toluene	ND		ug/kg	0.88	--	1
Ethylbenzene	ND		ug/kg	0.88	--	1
Chloromethane	ND		ug/kg	3.5	--	1
Bromomethane	ND		ug/kg	1.8	--	1
Vinyl chloride	ND		ug/kg	0.88	--	1
Chloroethane	ND		ug/kg	1.8	--	1
1,1-Dichloroethene	ND		ug/kg	0.88	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	--	1



Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-04  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.44	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	--	1
Methyl tert butyl ether	ND		ug/kg	1.8	--	1
p/m-Xylene	ND		ug/kg	1.8	--	1
o-Xylene	ND		ug/kg	0.88	--	1
Xylenes, Total	ND		ug/kg	0.88	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.88	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.88	--	1
Dibromomethane	ND		ug/kg	1.8	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	--	1
Styrene	ND		ug/kg	0.88	--	1
Dichlorodifluoromethane	ND		ug/kg	8.8	--	1
Acetone	ND		ug/kg	22	--	1
Carbon disulfide	ND		ug/kg	8.8	--	1
Methyl ethyl ketone	ND		ug/kg	8.8	--	1
Methyl isobutyl ketone	ND		ug/kg	8.8	--	1
2-Hexanone	ND		ug/kg	8.8	--	1
Bromochloromethane	ND		ug/kg	1.8	--	1
Tetrahydrofuran	ND		ug/kg	3.5	--	1
2,2-Dichloropropane	ND		ug/kg	1.8	--	1
1,2-Dibromoethane	ND		ug/kg	0.88	--	1
1,3-Dichloropropane	ND		ug/kg	1.8	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.44	--	1
Bromobenzene	ND		ug/kg	1.8	--	1
n-Butylbenzene	ND		ug/kg	0.88	--	1
sec-Butylbenzene	ND		ug/kg	0.88	--	1
tert-Butylbenzene	ND		ug/kg	1.8	--	1
o-Chlorotoluene	ND		ug/kg	1.8	--	1
p-Chlorotoluene	ND		ug/kg	1.8	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	--	1
Hexachlorobutadiene	ND		ug/kg	3.5	--	1
Isopropylbenzene	ND		ug/kg	0.88	--	1
p-Isopropyltoluene	ND		ug/kg	0.88	--	1
Naphthalene	ND		ug/kg	3.5	--	1
n-Propylbenzene	ND		ug/kg	0.88	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-04  
**Client ID:** SP-GRAVEL-D  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 10:10  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	--	1
Diethyl ether	ND		ug/kg	1.8	--	1
Diisopropyl Ether	ND		ug/kg	1.8	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.8	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.8	--	1
1,4-Dioxane	ND		ug/kg	70	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	119		70-130

**Project Name:** 776 SUMMER ST.**Lab Number:** L2273023**Project Number:** 4867.02**Report Date:** 01/10/23**SAMPLE RESULTS**

Lab ID: L2273023-05  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Solid  
 Analytical Method: 141,8260D  
 Analytical Date: 01/04/23 15:44  
 Analyst: AJK  
 Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	3.8	--	1
1,1-Dichloroethane	ND		ug/kg	0.76	--	1
Chloroform	ND		ug/kg	1.1	--	1
Carbon tetrachloride	ND		ug/kg	0.76	--	1
1,2-Dichloropropane	ND		ug/kg	0.76	--	1
Dibromochloromethane	ND		ug/kg	0.76	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.76	--	1
Tetrachloroethene	ND		ug/kg	0.38	--	1
Chlorobenzene	ND		ug/kg	0.38	--	1
Trichlorofluoromethane	ND		ug/kg	3.0	--	1
1,2-Dichloroethane	ND		ug/kg	0.76	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.38	--	1
Bromodichloromethane	ND		ug/kg	0.38	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.76	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.38	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.38	--	1
1,1-Dichloropropene	ND		ug/kg	0.38	--	1
Bromoform	ND		ug/kg	3.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.38	--	1
Benzene	ND		ug/kg	0.38	--	1
Toluene	ND		ug/kg	0.76	--	1
Ethylbenzene	ND		ug/kg	0.76	--	1
Chloromethane	ND		ug/kg	3.0	--	1
Bromomethane	ND		ug/kg	1.5	--	1
Vinyl chloride	ND		ug/kg	0.76	--	1
Chloroethane	ND		ug/kg	1.5	--	1
1,1-Dichloroethene	ND		ug/kg	0.76	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-05  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.38	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.5	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.5	--	1
Methyl tert butyl ether	ND		ug/kg	1.5	--	1
p/m-Xylene	ND		ug/kg	1.5	--	1
o-Xylene	ND		ug/kg	0.76	--	1
Xylenes, Total	ND		ug/kg	0.76	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.76	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.76	--	1
Dibromomethane	ND		ug/kg	1.5	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.5	--	1
Styrene	ND		ug/kg	0.76	--	1
Dichlorodifluoromethane	ND		ug/kg	7.6	--	1
Acetone	42		ug/kg	19	--	1
Carbon disulfide	ND		ug/kg	7.6	--	1
Methyl ethyl ketone	ND		ug/kg	7.6	--	1
Methyl isobutyl ketone	ND		ug/kg	7.6	--	1
2-Hexanone	ND		ug/kg	7.6	--	1
Bromochloromethane	ND		ug/kg	1.5	--	1
Tetrahydrofuran	ND		ug/kg	3.0	--	1
2,2-Dichloropropane	ND		ug/kg	1.5	--	1
1,2-Dibromoethane	ND		ug/kg	0.76	--	1
1,3-Dichloropropane	ND		ug/kg	1.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.38	--	1
Bromobenzene	ND		ug/kg	1.5	--	1
n-Butylbenzene	ND		ug/kg	0.76	--	1
sec-Butylbenzene	ND		ug/kg	0.76	--	1
tert-Butylbenzene	ND		ug/kg	1.5	--	1
o-Chlorotoluene	ND		ug/kg	1.5	--	1
p-Chlorotoluene	ND		ug/kg	1.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.3	--	1
Hexachlorobutadiene	ND		ug/kg	3.0	--	1
Isopropylbenzene	ND		ug/kg	0.76	--	1
p-Isopropyltoluene	ND		ug/kg	0.76	--	1
Naphthalene	14		ug/kg	3.0	--	1
n-Propylbenzene	ND		ug/kg	0.76	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-05  
**Client ID:** SP-CONCRETE-A  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 11:20  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.5	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.5	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.5	--	1
Diethyl ether	ND		ug/kg	1.5	--	1
Diisopropyl Ether	ND		ug/kg	1.5	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.5	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.5	--	1
1,4-Dioxane	ND		ug/kg	61	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	73		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-06  
**Client ID:** SP-CONCRETE-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 12:00  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Solid  
**Analytical Method:** 141,8260D  
**Analytical Date:** 01/04/23 16:03  
**Analyst:** AJK  
**Percent Solids:** 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.97	--	1
Chloroform	ND		ug/kg	1.4	--	1
Carbon tetrachloride	ND		ug/kg	0.97	--	1
1,2-Dichloropropane	ND		ug/kg	0.97	--	1
Dibromochloromethane	ND		ug/kg	0.97	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.97	--	1
Tetrachloroethene	ND		ug/kg	0.49	--	1
Chlorobenzene	ND		ug/kg	0.49	--	1
Trichlorofluoromethane	ND		ug/kg	3.9	--	1
1,2-Dichloroethane	ND		ug/kg	0.97	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	--	1
Bromodichloromethane	ND		ug/kg	0.49	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.97	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	--	1
1,1-Dichloropropene	ND		ug/kg	0.49	--	1
Bromoform	ND		ug/kg	3.9	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	--	1
Benzene	ND		ug/kg	0.49	--	1
Toluene	ND		ug/kg	0.97	--	1
Ethylbenzene	ND		ug/kg	0.97	--	1
Chloromethane	ND		ug/kg	3.9	--	1
Bromomethane	ND		ug/kg	1.9	--	1
Vinyl chloride	ND		ug/kg	0.97	--	1
Chloroethane	ND		ug/kg	1.9	--	1
1,1-Dichloroethene	ND		ug/kg	0.97	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-06  
 Client ID: SP-CONCRETE-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 12:00  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.49	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	--	1
Methyl tert butyl ether	ND		ug/kg	1.9	--	1
p/m-Xylene	ND		ug/kg	1.9	--	1
o-Xylene	ND		ug/kg	0.97	--	1
Xylenes, Total	ND		ug/kg	0.97	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.97	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.97	--	1
Dibromomethane	ND		ug/kg	1.9	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	--	1
Styrene	ND		ug/kg	0.97	--	1
Dichlorodifluoromethane	ND		ug/kg	9.7	--	1
Acetone	55		ug/kg	24	--	1
Carbon disulfide	ND		ug/kg	9.7	--	1
Methyl ethyl ketone	ND		ug/kg	9.7	--	1
Methyl isobutyl ketone	ND		ug/kg	9.7	--	1
2-Hexanone	ND		ug/kg	9.7	--	1
Bromochloromethane	ND		ug/kg	1.9	--	1
Tetrahydrofuran	ND		ug/kg	3.9	--	1
2,2-Dichloropropane	ND		ug/kg	1.9	--	1
1,2-Dibromoethane	ND		ug/kg	0.97	--	1
1,3-Dichloropropane	ND		ug/kg	1.9	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	--	1
Bromobenzene	ND		ug/kg	1.9	--	1
n-Butylbenzene	ND		ug/kg	0.97	--	1
sec-Butylbenzene	ND		ug/kg	0.97	--	1
tert-Butylbenzene	ND		ug/kg	1.9	--	1
o-Chlorotoluene	ND		ug/kg	1.9	--	1
p-Chlorotoluene	ND		ug/kg	1.9	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	--	1
Hexachlorobutadiene	ND		ug/kg	3.9	--	1
Isopropylbenzene	ND		ug/kg	0.97	--	1
p-Isopropyltoluene	ND		ug/kg	0.97	--	1
Naphthalene	ND		ug/kg	3.9	--	1
n-Propylbenzene	ND		ug/kg	0.97	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-06  
**Client ID:** SP-CONCRETE-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 12:00  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	--	1
Diethyl ether	ND		ug/kg	1.9	--	1
Diisopropyl Ether	ND		ug/kg	1.9	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.9	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.9	--	1
1,4-Dioxane	ND		ug/kg	78	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	68	Q	70-130



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8260D  
Analytical Date: 01/04/23 09:51  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02-03,05-06 Batch: WG1729950-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D  
Analytical Date: 01/04/23 09:51  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02-03,05-06 Batch: WG1729950-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D  
Analytical Date: 01/04/23 09:51  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02-03,05-06 Batch: WG1729950-5					
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
Diethyl ether	ND		ug/kg	2.0	--
Diisopropyl Ether	ND		ug/kg	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	107		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 01/06/23 12:31  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04 Batch: WG1731012-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8260D  
Analytical Date: 01/06/23 12:31  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04 Batch: WG1731012-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8260D  
Analytical Date: 01/06/23 12:31  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
<b>MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04 Batch: WG1731012-5</b>					
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
Diethyl ether	ND		ug/kg	2.0	--
Diisopropyl Ether	ND		ug/kg	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	114		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-03,05-06 Batch: WG1729950-3 WG1729950-4								
Methylene chloride	95		89		70-130	7		20
1,1-Dichloroethane	93		89		70-130	4		20
Chloroform	96		91		70-130	5		20
Carbon tetrachloride	92		88		70-130	4		20
1,2-Dichloropropane	96		92		70-130	4		20
Dibromochloromethane	96		92		70-130	4		20
1,1,2-Trichloroethane	96		93		70-130	3		20
Tetrachloroethene	98		92		70-130	6		20
Chlorobenzene	95		90		70-130	5		20
Trichlorofluoromethane	91		90		70-130	1		20
1,2-Dichloroethane	95		91		70-130	4		20
1,1,1-Trichloroethane	94		91		70-130	3		20
Bromodichloromethane	92		89		70-130	3		20
trans-1,3-Dichloropropene	97		93		70-130	4		20
cis-1,3-Dichloropropene	98		95		70-130	3		20
1,1-Dichloropropene	97		94		70-130	3		20
Bromoform	84		82		70-130	2		20
1,1,1,2-Tetrachloroethane	93		91		70-130	2		20
Benzene	94		91		70-130	3		20
Toluene	94		90		70-130	4		20
Ethylbenzene	96		92		70-130	4		20
Chloromethane	94		90		70-130	4		20
Bromomethane	98		90		70-130	9		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-03,05-06 Batch: WG1729950-3 WG1729950-4								
Vinyl chloride	90		86		70-130	5		20
Chloroethane	98		94		70-130	4		20
1,1-Dichloroethene	95		90		70-130	5		20
trans-1,2-Dichloroethene	94		89		70-130	5		20
Trichloroethene	94		90		70-130	4		20
1,2-Dichlorobenzene	96		90		70-130	6		20
1,3-Dichlorobenzene	95		92		70-130	3		20
1,4-Dichlorobenzene	95		91		70-130	4		20
Methyl tert butyl ether	97		94		70-130	3		20
p/m-Xylene	99		93		70-130	6		20
o-Xylene	98		92		70-130	6		20
cis-1,2-Dichloroethene	93		88		70-130	6		20
Dibromomethane	94		91		70-130	3		20
1,2,3-Trichloropropane	94		92		70-130	2		20
Styrene	99		94		70-130	5		20
Dichlorodifluoromethane	87		83		70-130	5		20
Acetone	90		84		70-130	7		20
Carbon disulfide	93		90		70-130	3		20
Methyl ethyl ketone	87		80		70-130	8		20
Methyl isobutyl ketone	86		81		70-130	6		20
2-Hexanone	87		81		70-130	7		20
Bromochloromethane	96		94		70-130	2		20
Tetrahydrofuran	93		93		70-130	0		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-03,05-06 Batch: WG1729950-3 WG1729950-4								
2,2-Dichloropropane	95		91		70-130	4		20
1,2-Dibromoethane	99		95		70-130	4		20
1,3-Dichloropropane	98		95		70-130	3		20
1,1,1,2-Tetrachloroethane	97		93		70-130	4		20
Bromobenzene	92		90		70-130	2		20
n-Butylbenzene	96		91		70-130	5		20
sec-Butylbenzene	96		92		70-130	4		20
tert-Butylbenzene	94		91		70-130	3		20
o-Chlorotoluene	93		92		70-130	1		20
p-Chlorotoluene	96		92		70-130	4		20
1,2-Dibromo-3-chloropropane	83		79		70-130	5		20
Hexachlorobutadiene	88		82		70-130	7		20
Isopropylbenzene	95		92		70-130	3		20
p-Isopropyltoluene	96		92		70-130	4		20
Naphthalene	92		88		70-130	4		20
n-Propylbenzene	96		92		70-130	4		20
1,2,3-Trichlorobenzene	91		86		70-130	6		20
1,2,4-Trichlorobenzene	92		88		70-130	4		20
1,3,5-Trimethylbenzene	97		93		70-130	4		20
1,2,4-Trimethylbenzene	96		92		70-130	4		20
Diethyl ether	92		93		70-130	1		20
Diisopropyl Ether	95		91		70-130	4		20
Ethyl-Tert-Butyl-Ether	95		92		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2273023

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-03,05-06 Batch: WG1729950-3 WG1729950-4								
Tertiary-Amyl Methyl Ether	94		92		70-130	2		20
1,4-Dioxane	90		88		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		97		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	99		100		70-130
Dibromofluoromethane	97		98		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1731012-3 WG1731012-4								
Methylene chloride	82		61	Q	70-130	29	Q	20
1,1-Dichloroethane	88		90		70-130	2		20
Chloroform	83		87		70-130	5		20
Carbon tetrachloride	89		89		70-130	0		20
1,2-Dichloropropane	89		90		70-130	1		20
Dibromochloromethane	92		94		70-130	2		20
1,1,2-Trichloroethane	84		85		70-130	1		20
Tetrachloroethene	88		88		70-130	0		20
Chlorobenzene	86		87		70-130	1		20
Trichlorofluoromethane	78		81		70-130	4		20
1,2-Dichloroethane	89		91		70-130	2		20
1,1,1-Trichloroethane	88		88		70-130	0		20
Bromodichloromethane	86		87		70-130	1		20
trans-1,3-Dichloropropene	84		84		70-130	0		20
cis-1,3-Dichloropropene	90		89		70-130	1		20
1,1-Dichloropropene	81		82		70-130	1		20
Bromoform	82		85		70-130	4		20
1,1,2,2-Tetrachloroethane	76		76		70-130	0		20
Benzene	82		84		70-130	2		20
Toluene	76		77		70-130	1		20
Ethylbenzene	77		78		70-130	1		20
Chloromethane	92		95		70-130	3		20
Bromomethane	107		111		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1731012-3 WG1731012-4								
Vinyl chloride	74		75		70-130	1		20
Chloroethane	78		82		70-130	5		20
1,1-Dichloroethene	73		75		70-130	3		20
trans-1,2-Dichloroethene	92		92		70-130	0		20
Trichloroethene	88		92		70-130	4		20
1,2-Dichlorobenzene	88		89		70-130	1		20
1,3-Dichlorobenzene	85		86		70-130	1		20
1,4-Dichlorobenzene	84		85		70-130	1		20
Methyl tert butyl ether	85		88		70-130	3		20
p/m-Xylene	83		84		70-130	1		20
o-Xylene	82		83		70-130	1		20
cis-1,2-Dichloroethene	90		92		70-130	2		20
Dibromomethane	93		96		70-130	3		20
1,2,3-Trichloropropane	76		78		70-130	3		20
Styrene	83		83		70-130	0		20
Dichlorodifluoromethane	64	Q	63	Q	70-130	2		20
Acetone	148	Q	123		70-130	18		20
Carbon disulfide	43	Q	46	Q	70-130	7		20
Methyl ethyl ketone	101		106		70-130	5		20
Methyl isobutyl ketone	83		87		70-130	5		20
2-Hexanone	90		94		70-130	4		20
Bromochloromethane	103		104		70-130	1		20
Tetrahydrofuran	103		111		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1731012-3 WG1731012-4								
2,2-Dichloropropane	81		82		70-130	1		20
1,2-Dibromoethane	88		90		70-130	2		20
1,3-Dichloropropane	81		82		70-130	1		20
1,1,1,2-Tetrachloroethane	90		90		70-130	0		20
Bromobenzene	82		84		70-130	2		20
n-Butylbenzene	80		81		70-130	1		20
sec-Butylbenzene	79		80		70-130	1		20
tert-Butylbenzene	79		80		70-130	1		20
o-Chlorotoluene	74		75		70-130	1		20
p-Chlorotoluene	76		77		70-130	1		20
1,2-Dibromo-3-chloropropane	89		93		70-130	4		20
Hexachlorobutadiene	90		92		70-130	2		20
Isopropylbenzene	75		77		70-130	3		20
p-Isopropyltoluene	83		82		70-130	1		20
Naphthalene	94		96		70-130	2		20
n-Propylbenzene	75		76		70-130	1		20
1,2,3-Trichlorobenzene	99		99		70-130	0		20
1,2,4-Trichlorobenzene	97		98		70-130	1		20
1,3,5-Trimethylbenzene	77		79		70-130	3		20
1,2,4-Trimethylbenzene	79		80		70-130	1		20
Diethyl ether	71		74		70-130	4		20
Diisopropyl Ether	108		111		70-130	3		20
Ethyl-Tert-Butyl-Ether	93		94		70-130	1		20

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04 Batch: WG1731012-3 WG1731012-4								
Tertiary-Amyl Methyl Ether	84		85		70-130	1		20
1,4-Dioxane	98		104		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		98		70-130
Toluene-d8	94		93		70-130
4-Bromofluorobenzene	85		85		70-130
Dibromofluoromethane	111		110		70-130

# SEMIVOLATILES

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8270E  
 Analytical Date: 01/04/23 03:30  
 Analyst: JG  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	420	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	520	--	1
Hexachlorobenzene	ND		ug/kg	220	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	220	--	1
2-Chloronaphthalene	ND		ug/kg	520	--	1
1,2-Dichlorobenzene	ND		ug/kg	520	--	1
1,3-Dichlorobenzene	ND		ug/kg	520	--	1
1,4-Dichlorobenzene	ND		ug/kg	220	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	520	--	1
2,4-Dinitrotoluene	ND		ug/kg	220	--	1
2,6-Dinitrotoluene	ND		ug/kg	520	--	1
Azobenzene	ND		ug/kg	520	--	1
Fluoranthene	6100		ug/kg	310	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	520	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	560	--	1
Hexachlorobutadiene	ND		ug/kg	520	--	1
Hexachloroethane	ND		ug/kg	220	--	1
Isophorone	ND		ug/kg	470	--	1
Naphthalene	ND		ug/kg	520	--	1
Nitrobenzene	ND		ug/kg	470	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	520	--	1
Butyl benzyl phthalate	ND		ug/kg	520	--	1
Di-n-butylphthalate	ND		ug/kg	520	--	1
Di-n-octylphthalate	ND		ug/kg	520	--	1
Diethyl phthalate	ND		ug/kg	520	--	1
Dimethyl phthalate	ND		ug/kg	220	--	1
Benzo(a)anthracene	3700		ug/kg	310	--	1



Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(a)pyrene	2900		ug/kg	420	--	1
Benzo(b)fluoranthene	3900		ug/kg	310	--	1
Benzo(k)fluoranthene	1300		ug/kg	310	--	1
Chrysene	3600		ug/kg	310	--	1
Acenaphthylene	ND		ug/kg	420	--	1
Anthracene	870		ug/kg	310	--	1
Benzo(ghi)perylene	1500		ug/kg	420	--	1
Fluorene	ND		ug/kg	520	--	1
Phenanthrene	3500		ug/kg	310	--	1
Dibenzo(a,h)anthracene	430		ug/kg	220	--	1
Indeno(1,2,3-cd)pyrene	1800		ug/kg	420	--	1
Pyrene	5300		ug/kg	310	--	1
Aniline	ND		ug/kg	620	--	1
4-Chloroaniline	ND		ug/kg	520	--	1
Dibenzofuran	ND		ug/kg	520	--	1
2-Methylnaphthalene	240		ug/kg	220	--	1
Acetophenone	ND		ug/kg	520	--	1
2,4,6-Trichlorophenol	ND		ug/kg	220	--	1
2-Chlorophenol	ND		ug/kg	220	--	1
2,4-Dichlorophenol	ND		ug/kg	220	--	1
2,4-Dimethylphenol	ND		ug/kg	220	--	1
2-Nitrophenol	ND		ug/kg	1100	--	1
4-Nitrophenol	ND		ug/kg	730	--	1
2,4-Dinitrophenol	ND		ug/kg	2500	--	1
Pentachlorophenol	ND		ug/kg	1000	--	1
Phenol	ND		ug/kg	520	--	1
2-Methylphenol	ND		ug/kg	520	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	750	--	1
2,4,5-Trichlorophenol	ND		ug/kg	520	--	1
Pyridine	ND		ug/kg	560	--	1
Biphenyl	ND		ug/kg	100	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		30-130
Phenol-d6	80		30-130
Nitrobenzene-d5	93		30-130
2-Fluorobiphenyl	76		30-130
2,4,6-Tribromophenol	87		30-130
4-Terphenyl-d14	83		30-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-02  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8270E  
 Analytical Date: 01/04/23 05:54  
 Analyst: JG  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	2400		ug/kg	140	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	--	1
Hexachlorobenzene	ND		ug/kg	75	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	75	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
1,2-Dichlorobenzene	ND		ug/kg	180	--	1
1,3-Dichlorobenzene	ND		ug/kg	180	--	1
1,4-Dichlorobenzene	ND		ug/kg	75	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	75	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Azobenzene	ND		ug/kg	180	--	1
Fluoranthene	22000	E	ug/kg	110	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	75	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachloroethane	ND		ug/kg	75	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	960		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	75	--	1
Benzo(a)anthracene	18000	E	ug/kg	110	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-02  
**Client ID:** SP-GRAVEL-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 08:55  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Benzo(a)pyrene	12000	E	ug/kg	140	--	1
Benzo(b)fluoranthene	19000	E	ug/kg	110	--	1
Benzo(k)fluoranthene	3300		ug/kg	110	--	1
Chrysene	14000	E	ug/kg	110	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	4500		ug/kg	110	--	1
Benzo(ghi)perylene	6500		ug/kg	140	--	1
Fluorene	2000		ug/kg	180	--	1
Phenanthrene	16000	E	ug/kg	110	--	1
Dibenzo(a,h)anthracene	1700		ug/kg	75	--	1
Indeno(1,2,3-cd)pyrene	8500	E	ug/kg	140	--	1
Pyrene	18000	E	ug/kg	110	--	1
Aniline	ND		ug/kg	210	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
Dibenzofuran	1400		ug/kg	180	--	1
2-Methylnaphthalene	710		ug/kg	75	--	1
Acetophenone	ND		ug/kg	180	--	1
2,4,6-Trichlorophenol	ND		ug/kg	75	--	1
2-Chlorophenol	ND		ug/kg	75	--	1
2,4-Dichlorophenol	ND		ug/kg	75	--	1
2,4-Dimethylphenol	ND		ug/kg	75	--	1
2-Nitrophenol	ND		ug/kg	390	--	1
4-Nitrophenol	ND		ug/kg	250	--	1
2,4-Dinitrophenol	ND		ug/kg	860	--	1
Pentachlorophenol	ND		ug/kg	360	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1
Pyridine	ND		ug/kg	190	--	1
Biphenyl	170		ug/kg	36	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-02  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		30-130
Phenol-d6	69		30-130
Nitrobenzene-d5	81		30-130
2-Fluorobiphenyl	64		30-130
2,4,6-Tribromophenol	60		30-130
4-Terphenyl-d14	63		30-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-02 D  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8270E  
 Analytical Date: 01/07/23 03:56  
 Analyst: CMM  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Fluoranthene	40000		ug/kg	1100	--	10
Benzo(a)anthracene	20000		ug/kg	1100	--	10
Benzo(a)pyrene	19000		ug/kg	1400	--	10
Benzo(b)fluoranthene	24000		ug/kg	1100	--	10
Chrysene	20000		ug/kg	1100	--	10
Phenanthrene	22000		ug/kg	1100	--	10
Indeno(1,2,3-cd)pyrene	10000		ug/kg	1400	--	10
Pyrene	33000		ug/kg	1100	--	10

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-03  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8270E  
 Analytical Date: 01/04/23 04:42  
 Analyst: JG  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	3400		ug/kg	410	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	510	--	1
Hexachlorobenzene	ND		ug/kg	220	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	220	--	1
2-Chloronaphthalene	ND		ug/kg	510	--	1
1,2-Dichlorobenzene	ND		ug/kg	510	--	1
1,3-Dichlorobenzene	ND		ug/kg	510	--	1
1,4-Dichlorobenzene	ND		ug/kg	220	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	510	--	1
2,4-Dinitrotoluene	ND		ug/kg	220	--	1
2,6-Dinitrotoluene	ND		ug/kg	510	--	1
Azobenzene	ND		ug/kg	510	--	1
Fluoranthene	43000	E	ug/kg	310	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	510	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	560	--	1
Hexachlorobutadiene	ND		ug/kg	510	--	1
Hexachloroethane	ND		ug/kg	220	--	1
Isophorone	ND		ug/kg	460	--	1
Naphthalene	540		ug/kg	510	--	1
Nitrobenzene	ND		ug/kg	460	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	510	--	1
Butyl benzyl phthalate	ND		ug/kg	510	--	1
Di-n-butylphthalate	ND		ug/kg	510	--	1
Di-n-octylphthalate	ND		ug/kg	510	--	1
Diethyl phthalate	ND		ug/kg	510	--	1
Dimethyl phthalate	ND		ug/kg	220	--	1
Benzo(a)anthracene	37000	E	ug/kg	310	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-03  
**Client ID:** SP-GRAVEL-C  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 09:35  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Benzo(a)pyrene	27000	E	ug/kg	410	--	1
Benzo(b)fluoranthene	40000	E	ug/kg	310	--	1
Benzo(k)fluoranthene	7300		ug/kg	310	--	1
Chrysene	31000	E	ug/kg	310	--	1
Acenaphthylene	ND		ug/kg	410	--	1
Anthracene	8100		ug/kg	310	--	1
Benzo(ghi)perylene	14000		ug/kg	410	--	1
Fluorene	3000		ug/kg	510	--	1
Phenanthrene	26000	E	ug/kg	310	--	1
Dibenzo(a,h)anthracene	4100		ug/kg	220	--	1
Indeno(1,2,3-cd)pyrene	18000		ug/kg	410	--	1
Pyrene	38000	E	ug/kg	310	--	1
Aniline	ND		ug/kg	620	--	1
4-Chloroaniline	ND		ug/kg	510	--	1
Dibenzofuran	1600		ug/kg	510	--	1
2-Methylnaphthalene	560		ug/kg	220	--	1
Acetophenone	ND		ug/kg	510	--	1
2,4,6-Trichlorophenol	ND		ug/kg	220	--	1
2-Chlorophenol	ND		ug/kg	220	--	1
2,4-Dichlorophenol	ND		ug/kg	220	--	1
2,4-Dimethylphenol	ND		ug/kg	220	--	1
2-Nitrophenol	ND		ug/kg	1100	--	1
4-Nitrophenol	ND		ug/kg	720	--	1
2,4-Dinitrophenol	ND		ug/kg	2500	--	1
Pentachlorophenol	ND		ug/kg	1000	--	1
Phenol	ND		ug/kg	510	--	1
2-Methylphenol	ND		ug/kg	510	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	740	--	1
2,4,5-Trichlorophenol	ND		ug/kg	510	--	1
Pyridine	ND		ug/kg	560	--	1
Biphenyl	140		ug/kg	100	--	1



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-03  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		30-130
Phenol-d6	81		30-130
Nitrobenzene-d5	94		30-130
2-Fluorobiphenyl	71		30-130
2,4,6-Tribromophenol	90		30-130
4-Terphenyl-d14	68		30-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-03 D  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8270E  
 Analytical Date: 01/07/23 02:46  
 Analyst: CMM  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Semivolatile Organics - Westborough Lab						
Fluoranthene	62000		ug/kg	3100	--	10
Benzo(a)anthracene	36000		ug/kg	3100	--	10
Benzo(a)pyrene	36000		ug/kg	4100	--	10
Benzo(b)fluoranthene	44000		ug/kg	3100	--	10
Chrysene	36000		ug/kg	3100	--	10
Phenanthrene	29000		ug/kg	3100	--	10
Pyrene	51000		ug/kg	3100	--	10

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-04  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8270E  
 Analytical Date: 01/04/23 05:06  
 Analyst: JG  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	3100		ug/kg	410	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	510	--	1
Hexachlorobenzene	ND		ug/kg	210	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	--	1
2-Chloronaphthalene	ND		ug/kg	510	--	1
1,2-Dichlorobenzene	ND		ug/kg	510	--	1
1,3-Dichlorobenzene	ND		ug/kg	510	--	1
1,4-Dichlorobenzene	ND		ug/kg	210	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	510	--	1
2,4-Dinitrotoluene	ND		ug/kg	210	--	1
2,6-Dinitrotoluene	ND		ug/kg	510	--	1
Azobenzene	ND		ug/kg	510	--	1
Fluoranthene	26000	E	ug/kg	310	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	510	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	550	--	1
Hexachlorobutadiene	ND		ug/kg	510	--	1
Hexachloroethane	ND		ug/kg	210	--	1
Isophorone	ND		ug/kg	460	--	1
Naphthalene	1800		ug/kg	510	--	1
Nitrobenzene	ND		ug/kg	460	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	510	--	1
Butyl benzyl phthalate	ND		ug/kg	510	--	1
Di-n-butylphthalate	ND		ug/kg	510	--	1
Di-n-octylphthalate	ND		ug/kg	510	--	1
Diethyl phthalate	ND		ug/kg	510	--	1
Dimethyl phthalate	ND		ug/kg	210	--	1
Benzo(a)anthracene	13000		ug/kg	310	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-04  
**Client ID:** SP-GRAVEL-D  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 10:10  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Benzo(a)pyrene	11000		ug/kg	410	--	1
Benzo(b)fluoranthene	15000		ug/kg	310	--	1
Benzo(k)fluoranthene	4300		ug/kg	310	--	1
Chrysene	12000		ug/kg	310	--	1
Acenaphthylene	ND		ug/kg	410	--	1
Anthracene	4200		ug/kg	310	--	1
Benzo(ghi)perylene	7400		ug/kg	410	--	1
Fluorene	2300		ug/kg	510	--	1
Phenanthrene	22000	E	ug/kg	310	--	1
Dibenzo(a,h)anthracene	1700		ug/kg	210	--	1
Indeno(1,2,3-cd)pyrene	8500		ug/kg	410	--	1
Pyrene	21000	E	ug/kg	310	--	1
Aniline	ND		ug/kg	610	--	1
4-Chloroaniline	ND		ug/kg	510	--	1
Dibenzofuran	1700		ug/kg	510	--	1
2-Methylnaphthalene	1200		ug/kg	210	--	1
Acetophenone	ND		ug/kg	510	--	1
2,4,6-Trichlorophenol	ND		ug/kg	210	--	1
2-Chlorophenol	ND		ug/kg	210	--	1
2,4-Dichlorophenol	ND		ug/kg	210	--	1
2,4-Dimethylphenol	ND		ug/kg	210	--	1
2-Nitrophenol	ND		ug/kg	1100	--	1
4-Nitrophenol	ND		ug/kg	720	--	1
2,4-Dinitrophenol	ND		ug/kg	2400	--	1
Pentachlorophenol	ND		ug/kg	1000	--	1
Phenol	ND		ug/kg	510	--	1
2-Methylphenol	ND		ug/kg	510	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	740	--	1
2,4,5-Trichlorophenol	ND		ug/kg	510	--	1
Pyridine	ND		ug/kg	550	--	1
Biphenyl	260		ug/kg	100	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-04  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		30-130
Phenol-d6	70		30-130
Nitrobenzene-d5	81		30-130
2-Fluorobiphenyl	63		30-130
2,4,6-Tribromophenol	82		30-130
4-Terphenyl-d14	60		30-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-04 D  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 141,8270E  
 Analytical Date: 01/07/23 04:20  
 Analyst: CMM  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Semivolatile Organics - Westborough Lab						
Fluoranthene	35000		ug/kg	1500	--	5
Phenanthrene	24000		ug/kg	1500	--	5
Pyrene	28000		ug/kg	1500	--	5

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-05  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Solid  
 Analytical Method: 141,8270E  
 Analytical Date: 01/04/23 08:03  
 Analyst: CMM  
 Percent Solids: 97%

Extraction Method: EPA 3540C  
 Extraction Date: 01/03/23 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	180		ug/kg	130	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	1800		ug/kg	100	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachloroethane	ND		ug/kg	130	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	250		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	150	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	850		ug/kg	100	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-05  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(a)pyrene	790		ug/kg	130	--	1
Benzo(b)fluoranthene	990		ug/kg	100	--	1
Benzo(k)fluoranthene	290		ug/kg	100	--	1
Chrysene	830		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	130	--	1
Anthracene	360		ug/kg	100	--	1
Benzo(ghi)perylene	440		ug/kg	130	--	1
Fluorene	190		ug/kg	170	--	1
Phenanthrene	1400		ug/kg	100	--	1
Dibenzo(a,h)anthracene	110		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	490		ug/kg	130	--	1
Pyrene	1500		ug/kg	100	--	1
Biphenyl	ND		ug/kg	370	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	200	--	1
Acetophenone	ND		ug/kg	170	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	360	--	1
4-Nitrophenol	ND		ug/kg	230	--	1
Pentachlorophenol	ND		ug/kg	340	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	670	--	1



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-05  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	6	Q	31-118
Phenol-d6	48		37-126
Nitrobenzene-d5	54		29-137
2-Fluorobiphenyl	67		38-127
2,4,6-Tribromophenol	3	Q	40-130
4-Terphenyl-d14	68		36-137

**Project Name:** 776 SUMMER ST.**Lab Number:** L2273023**Project Number:** 4867.02**Report Date:** 01/10/23**SAMPLE RESULTS**

Lab ID: L2273023-05 RE

Date Collected: 12/30/22 11:20

Client ID: SP-CONCRETE-A

Date Received: 12/30/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Extraction Method: EPA 3540C

Analytical Method: 141,8270E

Extraction Date: 01/07/23 16:45

Analytical Date: 01/09/23 10:13

Analyst: CMM

Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	370		ug/kg	140	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	4000		ug/kg	100	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	1000		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	150	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	1600		ug/kg	100	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-05 RE

Date Collected: 12/30/22 11:20

Client ID: SP-CONCRETE-A

Date Received: 12/30/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(a)pyrene	1400		ug/kg	140	--	1
Benzo(b)fluoranthene	1700		ug/kg	100	--	1
Benzo(k)fluoranthene	600		ug/kg	100	--	1
Chrysene	1400		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	740		ug/kg	100	--	1
Benzo(ghi)perylene	740		ug/kg	140	--	1
Fluorene	520		ug/kg	170	--	1
Phenanthrene	2900		ug/kg	100	--	1
Dibenzo(a,h)anthracene	210		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	890		ug/kg	140	--	1
Pyrene	3200		ug/kg	100	--	1
Biphenyl	ND		ug/kg	370	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
Dibenzofuran	380		ug/kg	170	--	1
2-Methylnaphthalene	320		ug/kg	200	--	1
Acetophenone	ND		ug/kg	170	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	360	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	810	--	1
Pentachlorophenol	ND		ug/kg	340	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	680	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-05 RE  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	13	Q	31-118
Phenol-d6	44		37-126
Nitrobenzene-d5	50		29-137
2-Fluorobiphenyl	67		38-127
2,4,6-Tribromophenol	3	Q	40-130
4-Terphenyl-d14	81		36-137

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-06  
 Client ID: SP-CONCRETE-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 12:00  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Solid  
 Analytical Method: 141,8270E  
 Analytical Date: 01/04/23 08:50  
 Analyst: CMM  
 Percent Solids: 96%

Extraction Method: EPA 3540C  
 Extraction Date: 01/03/23 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	220		ug/kg	140	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	2000		ug/kg	100	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	540		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	160	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	950		ug/kg	100	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-06  
 Client ID: SP-CONCRETE-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 12:00  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(a)pyrene	920		ug/kg	140	--	1
Benzo(b)fluoranthene	1200		ug/kg	100	--	1
Benzo(k)fluoranthene	370		ug/kg	100	--	1
Chrysene	1000		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	400		ug/kg	100	--	1
Benzo(ghi)perylene	500		ug/kg	140	--	1
Fluorene	260		ug/kg	170	--	1
Phenanthrene	1700		ug/kg	100	--	1
Dibenzo(a,h)anthracene	140		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	580		ug/kg	140	--	1
Pyrene	1600		ug/kg	100	--	1
Biphenyl	ND		ug/kg	380	--	1
Aniline	ND		ug/kg	210	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
Dibenzofuran	230		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
Acetophenone	ND		ug/kg	170	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
Pentachlorophenol	ND		ug/kg	340	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	690	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-06  
 Client ID: SP-CONCRETE-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 12:00  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	29	Q	31-118
Phenol-d6	70		37-126
Nitrobenzene-d5	67		29-137
2-Fluorobiphenyl	80		38-127
2,4,6-Tribromophenol	14	Q	40-130
4-Terphenyl-d14	78		36-137

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-06 RE  
 Client ID: SP-CONCRETE-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 12:00  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Solid  
 Analytical Method: 141,8270E  
 Analytical Date: 01/09/23 10:37  
 Analyst: CMM  
 Percent Solids: 96%

Extraction Method: EPA 3540C  
 Extraction Date: 01/07/23 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	ND		ug/kg	100	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	150	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	ND		ug/kg	100	--	1



Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-06 RE

Date Collected: 12/30/22 12:00

Client ID: SP-CONCRETE-B

Date Received: 12/30/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	140	--	1
Benzo(b)fluoranthene	ND		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	ND		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	100	--	1
Biphenyl	ND		ug/kg	370	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	200	--	1
Acetophenone	ND		ug/kg	170	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	810	--	1
Pentachlorophenol	ND		ug/kg	340	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	680	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2273023**Project Number:** 4867.02**Report Date:** 01/10/23**SAMPLE RESULTS**

Lab ID: L2273023-06 RE

Date Collected: 12/30/22 12:00

Client ID: SP-CONCRETE-B

Date Received: 12/30/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	17	Q	31-118
Phenol-d6	47		37-126
Nitrobenzene-d5	50		29-137
2-Fluorobiphenyl	66		38-127
2,4,6-Tribromophenol	4	Q	40-130
4-Terphenyl-d14	69		36-137

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/04/23 03:21  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG1729157-1					
Acenaphthene	ND		ug/kg	130	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	69	--
Bis(2-chloroethyl)ether	ND		ug/kg	69	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	69	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	69	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	99	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	69	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachloroethane	ND		ug/kg	69	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	150	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	69	--
Benzo(a)anthracene	ND		ug/kg	99	--
Benzo(a)pyrene	ND		ug/kg	130	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/04/23 03:21  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG1729157-1					
Benzo(b)fluoranthene	ND		ug/kg	99	--
Benzo(k)fluoranthene	ND		ug/kg	99	--
Chrysene	ND		ug/kg	99	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	99	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	99	--
Dibenzo(a,h)anthracene	ND		ug/kg	69	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	99	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	69	--
Acetophenone	ND		ug/kg	160	--
2,4,6-Trichlorophenol	ND		ug/kg	69	--
2-Chlorophenol	ND		ug/kg	69	--
2,4-Dichlorophenol	ND		ug/kg	69	--
2,4-Dimethylphenol	ND		ug/kg	69	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	790	--
Pentachlorophenol	ND		ug/kg	330	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--
Pyridine	ND		ug/kg	180	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/04/23 03:21  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 12/31/22 18:15

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG1729157-1					
Biphenyl	ND		ug/kg	33	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		30-130
Phenol-d6	77		30-130
Nitrobenzene-d5	68		30-130
2-Fluorobiphenyl	80		30-130
2,4,6-Tribromophenol	69		30-130
4-Terphenyl-d14	77		30-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/04/23 02:11  
Analyst: CMM

Extraction Method: EPA 3540C  
Extraction Date: 01/03/23 01:20

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1729299-1					
Acenaphthene	ND		ug/kg	130	--
1,2,4-Trichlorobenzene	ND		ug/kg	170	--
Hexachlorobenzene	ND		ug/kg	100	--
Bis(2-chloroethyl)ether	ND		ug/kg	150	--
2-Chloronaphthalene	ND		ug/kg	170	--
1,2-Dichlorobenzene	ND		ug/kg	170	--
1,3-Dichlorobenzene	ND		ug/kg	170	--
1,4-Dichlorobenzene	ND		ug/kg	170	--
3,3'-Dichlorobenzidine	ND		ug/kg	170	--
2,4-Dinitrotoluene	ND		ug/kg	170	--
2,6-Dinitrotoluene	ND		ug/kg	170	--
Azobenzene	ND		ug/kg	170	--
Fluoranthene	ND		ug/kg	100	--
4-Bromophenyl phenyl ether	ND		ug/kg	170	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	170	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	170	--
Nitrobenzene	ND		ug/kg	150	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--
Butyl benzyl phthalate	ND		ug/kg	170	--
Di-n-butylphthalate	ND		ug/kg	170	--
Di-n-octylphthalate	ND		ug/kg	170	--
Diethyl phthalate	ND		ug/kg	170	--
Dimethyl phthalate	ND		ug/kg	170	--
Benzo(a)anthracene	ND		ug/kg	100	--
Benzo(a)pyrene	ND		ug/kg	130	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/04/23 02:11  
Analyst: CMM

Extraction Method: EPA 3540C  
Extraction Date: 01/03/23 01:20

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1729299-1					
Benzo(b)fluoranthene	ND		ug/kg	100	--
Benzo(k)fluoranthene	ND		ug/kg	100	--
Chrysene	ND		ug/kg	100	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	100	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	170	--
Phenanthrene	ND		ug/kg	100	--
Dibenzo(a,h)anthracene	ND		ug/kg	100	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	100	--
Biphenyl	ND		ug/kg	360	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	170	--
Dibenzofuran	ND		ug/kg	170	--
2-Methylnaphthalene	ND		ug/kg	200	--
Acetophenone	ND		ug/kg	170	--
2,4,6-Trichlorophenol	ND		ug/kg	100	--
2-Chlorophenol	ND		ug/kg	170	--
2,4-Dichlorophenol	ND		ug/kg	150	--
2,4-Dimethylphenol	ND		ug/kg	170	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	800	--
Pentachlorophenol	ND		ug/kg	330	--
Phenol	ND		ug/kg	170	--
2-Methylphenol	ND		ug/kg	170	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	170	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/04/23 02:11  
Analyst: CMM

Extraction Method: EPA 3540C  
Extraction Date: 01/03/23 01:20

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1729299-1					
Pyridine	ND		ug/kg	660	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		31-118
Phenol-d6	55		37-126
Nitrobenzene-d5	48		29-137
2-Fluorobiphenyl	59		38-127
2,4,6-Tribromophenol	49		40-130
4-Terphenyl-d14	63		36-137



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/09/23 09:03  
Analyst: CMM

Extraction Method: EPA 3540C  
Extraction Date: 01/08/23 10:00

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1731028-1					
Acenaphthene	ND		ug/kg	130	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	99	--
Bis(2-chloroethyl)ether	ND		ug/kg	150	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	99	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	150	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	99	--
Benzo(a)pyrene	ND		ug/kg	130	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 141,8270E  
Analytical Date: 01/09/23 09:03  
Analyst: CMM

Extraction Method: EPA 3540C  
Extraction Date: 01/08/23 10:00

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1731028-1					
Benzo(b)fluoranthene	ND		ug/kg	99	--
Benzo(k)fluoranthene	ND		ug/kg	99	--
Chrysene	ND		ug/kg	99	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	99	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	99	--
Dibenzo(a,h)anthracene	ND		ug/kg	99	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	99	--
Biphenyl	ND		ug/kg	360	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	200	--
Acetophenone	ND		ug/kg	160	--
2,4,6-Trichlorophenol	ND		ug/kg	99	--
2-Chlorophenol	ND		ug/kg	160	--
2,4-Dichlorophenol	ND		ug/kg	150	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	790	--
Pentachlorophenol	ND		ug/kg	330	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

**Analytical Method:** 141,8270E  
**Analytical Date:** 01/09/23 09:03  
**Analyst:** CMM

**Extraction Method:** EPA 3540C  
**Extraction Date:** 01/08/23 10:00

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1731028-1					
Pyridine	ND		ug/kg	660	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		31-118
Phenol-d6	55		37-126
Nitrobenzene-d5	44		29-137
2-Fluorobiphenyl	60		38-127
2,4,6-Tribromophenol	60		40-130
4-Terphenyl-d14	62		36-137

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG1729157-2 WG1729157-3								
Acenaphthene	70		81		40-140	15		30
1,2,4-Trichlorobenzene	68		80		40-140	16		30
Hexachlorobenzene	77		88		40-140	13		30
Bis(2-chloroethyl)ether	62		72		40-140	15		30
2-Chloronaphthalene	71		83		40-140	16		30
1,2-Dichlorobenzene	65		75		40-140	14		30
1,3-Dichlorobenzene	66		76		40-140	14		30
1,4-Dichlorobenzene	66		76		40-140	14		30
3,3'-Dichlorobenzidine	74		72		40-140	3		30
2,4-Dinitrotoluene	75		86		40-140	14		30
2,6-Dinitrotoluene	72		84		40-140	15		30
Azobenzene	65		75		40-140	14		30
Fluoranthene	76		87		40-140	13		30
4-Bromophenyl phenyl ether	80		92		40-140	14		30
Bis(2-chloroisopropyl)ether	63		73		40-140	15		30
Bis(2-chloroethoxy)methane	60		72		40-140	18		30
Hexachlorobutadiene	75		85		40-140	13		30
Hexachloroethane	61		70		40-140	14		30
Isophorone	56		66		40-140	16		30
Naphthalene	70		80		40-140	13		30
Nitrobenzene	60		70		40-140	15		30
Bis(2-ethylhexyl)phthalate	67		77		40-140	14		30
Butyl benzyl phthalate	69		80		40-140	15		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG1729157-2 WG1729157-3								
Di-n-butylphthalate	71		81		40-140	13		30
Di-n-octylphthalate	67		77		40-140	14		30
Diethyl phthalate	69		79		40-140	14		30
Dimethyl phthalate	70		81		40-140	15		30
Benzo(a)anthracene	75		84		40-140	11		30
Benzo(a)pyrene	82		92		40-140	11		30
Benzo(b)fluoranthene	82		92		40-140	11		30
Benzo(k)fluoranthene	77		86		40-140	11		30
Chrysene	76		84		40-140	10		30
Acenaphthylene	72		84		40-140	15		30
Anthracene	75		85		40-140	13		30
Benzo(ghi)perylene	79		88		40-140	11		30
Fluorene	71		82		40-140	14		30
Phenanthrene	73		82		40-140	12		30
Dibenzo(a,h)anthracene	79		88		40-140	11		30
Indeno(1,2,3-cd)pyrene	87		97		40-140	11		30
Pyrene	76		87		40-140	13		30
Aniline	57		58		40-140	2		30
4-Chloroaniline	57		54		40-140	5		30
Dibenzofuran	74		85		40-140	14		30
2-Methylnaphthalene	69		79		40-140	14		30
Acetophenone	60		72		40-140	18		30
2,4,6-Trichlorophenol	78		90		30-130	14		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2273023

Report Date: 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG1729157-2 WG1729157-3								
2-Chlorophenol	67		79		30-130	16		30
2,4-Dichlorophenol	70		84		30-130	18		30
2,4-Dimethylphenol	61		70		30-130	14		30
2-Nitrophenol	66		79		30-130	18		30
4-Nitrophenol	63		74		30-130	16		30
2,4-Dinitrophenol	74		90		30-130	20		30
Pentachlorophenol	83		97		30-130	16		30
Phenol	71		84		30-130	17		30
2-Methylphenol	65		77		30-130	17		30
3-Methylphenol/4-Methylphenol	66		78		30-130	17		30
2,4,5-Trichlorophenol	77		91		30-130	17		30
Pyridine	46		52		30-130	12		30
Biphenyl	70		79		40-140	12		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2-Fluorophenol	67		84		30-130
Phenol-d6	65		82		30-130
Nitrobenzene-d5	58		72		30-130
2-Fluorobiphenyl	72		88		30-130
2,4,6-Tribromophenol	73		89		30-130
4-Terphenyl-d14	79		96		30-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1729299-2 WG1729299-3								
Acenaphthene	68		67		42-111	1		30
1,2,4-Trichlorobenzene	68		69		42-103	1		30
Hexachlorobenzene	75		73		40-140	3		30
Bis(2-chloroethyl)ether	62		64		34-98	3		30
2-Chloronaphthalene	71		70		40-140	1		30
1,2-Dichlorobenzene	66		66		36-95	0		30
1,3-Dichlorobenzene	66		67		34-94	2		30
1,4-Dichlorobenzene	66		67		34-93	2		30
3,3'-Dichlorobenzidine	53		52		28-106	2		30
2,4-Dinitrotoluene	72		72		42-129	0		30
2,6-Dinitrotoluene	71		70		34-135	1		30
Azobenzene	62		61		35-136	2		30
Fluoranthene	73		72		40-140	1		30
4-Bromophenyl phenyl ether	78		75		40-140	4		30
Bis(2-chloroisopropyl)ether	63		64		12-107	2		30
Bis(2-chloroethoxy)methane	61		62		32-111	2		30
Hexachlorobutadiene	72		72		40-140	0		30
Hexachloroethane	60		62		32-97	3		30
Isophorone	56		57		33-115	2		30
Naphthalene	69		68		37-106	1		30
Nitrobenzene	60		60		32-118	0		30
Bis(2-ethylhexyl)phthalate	63		65		40-140	3		30
Butyl benzyl phthalate	66		66		35-139	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1729299-2 WG1729299-3								
Di-n-butylphthalate	66		65		40-140	2		30
Di-n-octylphthalate	63		63		40-140	0		30
Diethyl phthalate	66		65		40-140	2		30
Dimethyl phthalate	69		68		40-140	1		30
Benzo(a)anthracene	70		70		40-140	0		30
Benzo(a)pyrene	78		76		40-140	3		30
Benzo(b)fluoranthene	78		76		40-140	3		30
Benzo(k)fluoranthene	74		73		40-140	1		30
Chrysene	72		71		40-140	1		30
Acenaphthylene	72		71		40-140	1		30
Anthracene	71		70		40-140	1		30
Benzo(ghi)perylene	72		71		40-140	1		30
Fluorene	68		68		40-140	0		30
Phenanthrene	68		68		40-140	0		30
Dibenzo(a,h)anthracene	72		71		40-140	1		30
Indeno(1,2,3-cd)pyrene	80		79		34-138	1		30
Pyrene	73		72		40-125	1		30
Biphenyl	68		67		40-140	1		30
Aniline	44		43		19-88	2		30
4-Chloroaniline	47		44		15-137	7		30
Dibenzofuran	72		70		40-140	3		30
2-Methylnaphthalene	68		67		40-140	1		30
Acetophenone	62		62		40-140	0		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1729299-2 WG1729299-3								
2,4,6-Trichlorophenol	77		74		30-130	4		30
2-Chlorophenol	68		68		37-112	0		30
2,4-Dichlorophenol	70		70		30-130	0		30
2,4-Dimethylphenol	58		60		30-130	3		30
2-Nitrophenol	66		67		30-130	2		30
4-Nitrophenol	60		60		39-161	0		30
Pentachlorophenol	50		56		36-121	11		30
Phenol	71		71		36-117	0		30
2-Methylphenol	66		66		30-130	0		30
3-Methylphenol/4-Methylphenol	66		67		30-130	2		30
2,4,5-Trichlorophenol	76		75		30-130	1		30
Pyridine	50		49		40-140	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		68		31-118
Phenol-d6	66		66		37-126
Nitrobenzene-d5	60		60		29-137
2-Fluorobiphenyl	71		70		38-127
2,4,6-Tribromophenol	70		67		40-130
4-Terphenyl-d14	76		75		36-137

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1731028-2 WG1731028-3								
Acenaphthene	54		49		42-111	10		30
1,2,4-Trichlorobenzene	56		51		42-103	9		30
Hexachlorobenzene	60		53		40-140	12		30
Bis(2-chloroethyl)ether	46		42		34-98	9		30
2-Chloronaphthalene	58		52		40-140	11		30
1,2-Dichlorobenzene	54		48		36-95	12		30
1,3-Dichlorobenzene	52		47		34-94	10		30
1,4-Dichlorobenzene	53		47		34-93	12		30
3,3'-Dichlorobenzidine	46		46		28-106	0		30
2,4-Dinitrotoluene	60		54		42-129	11		30
2,6-Dinitrotoluene	58		54		34-135	7		30
Azobenzene	44		39		35-136	12		30
Fluoranthene	59		53		40-140	11		30
4-Bromophenyl phenyl ether	58		53		40-140	9		30
Bis(2-chloroisopropyl)ether	29		27		12-107	7		30
Bis(2-chloroethoxy)methane	47		42		32-111	11		30
Hexachlorobutadiene	56		48		40-140	15		30
Hexachloroethane	44		37		32-97	17		30
Isophorone	45		42		33-115	7		30
Naphthalene	56		48		37-106	15		30
Nitrobenzene	45		40		32-118	12		30
Bis(2-ethylhexyl)phthalate	54		50		40-140	8		30
Butyl benzyl phthalate	55		50		35-139	10		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1731028-2 WG1731028-3								
Di-n-butylphthalate	54		49		40-140	10		30
Di-n-octylphthalate	55		51		40-140	8		30
Diethyl phthalate	53		48		40-140	10		30
Dimethyl phthalate	57		52		40-140	9		30
Benzo(a)anthracene	55		51		40-140	8		30
Benzo(a)pyrene	61		56		40-140	9		30
Benzo(b)fluoranthene	56		53		40-140	6		30
Benzo(k)fluoranthene	58		55		40-140	5		30
Chrysene	56		50		40-140	11		30
Acenaphthylene	61		55		40-140	10		30
Anthracene	57		50		40-140	13		30
Benzo(ghi)perylene	58		53		40-140	9		30
Fluorene	58		51		40-140	13		30
Phenanthrene	57		51		40-140	11		30
Dibenzo(a,h)anthracene	58		54		40-140	7		30
Indeno(1,2,3-cd)pyrene	66		60		34-138	10		30
Pyrene	57		52		40-125	9		30
Biphenyl	60		55		40-140	9		30
Aniline	35		33		19-88	6		30
4-Chloroaniline	46		40		15-137	14		30
Dibenzofuran	57		52		40-140	9		30
2-Methylnaphthalene	57		49		40-140	15		30
Acetophenone	55		50		40-140	10		30

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1731028-2 WG1731028-3								
2,4,6-Trichlorophenol	63		57		30-130	10		30
2-Chlorophenol	56		51		37-112	9		30
2,4-Dichlorophenol	61		53		30-130	14		30
2,4-Dimethylphenol	49		44		30-130	11		30
2-Nitrophenol	57		52		30-130	9		30
4-Nitrophenol	50		43		39-161	15		30
2,4-Dinitrophenol	14		12		10-155	15		30
Pentachlorophenol	54		51		36-121	6		30
Phenol	53		48		36-117	10		30
2-Methylphenol	56		52		30-130	7		30
3-Methylphenol/4-Methylphenol	57		53		30-130	7		30
2,4,5-Trichlorophenol	66		59		30-130	11		30
Pyridine	37	Q	31	Q	40-140	18		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2-Fluorophenol	54		51		31-118
Phenol-d6	56		49		37-126
Nitrobenzene-d5	47		43		29-137
2-Fluorobiphenyl	60		54		38-127
2,4,6-Tribromophenol	63		58		40-130
4-Terphenyl-d14	60		56		36-137

# PETROLEUM HYDROCARBONS

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/08/23 13:13  
 Analyst: SR  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 01/06/23 13:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH (C10-C36)	917000		ug/kg	35700	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	108		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-02 D  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/07/23 14:17  
 Analyst: AL  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 07:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	1580000		ug/kg	68900	--	2
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			94		40-140	

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-03 D  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/09/23 20:17  
 Analyst: SR  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 07:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	2970000		ug/kg	178000	--	5
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			100		40-140	



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-04 D  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/04/23 16:11  
 Analyst: SC  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 07:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbon Quantitation - Westborough Lab</b>						
TPH (C10-C36)	1910000		ug/kg	184000	--	5
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			81		40-140	

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-05  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Solid  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/04/23 10:53  
 Analyst: SC  
 Percent Solids: 97%

Extraction Method: EPA 3540C  
 Extraction Date: 01/03/23 01:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH (C10-C36)	215000		ug/kg	94700	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	72		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-06  
 Client ID: SP-CONCRETE-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 12:00  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Solid  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/04/23 12:04  
 Analyst: SC  
 Percent Solids: 96%

Extraction Method: EPA 3540C  
 Extraction Date: 01/03/23 01:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH (C10-C36)	434000		ug/kg	94100	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	74		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 1,8015D(M)  
Analytical Date: 01/03/23 11:35  
Analyst: MC

Extraction Method: EPA 3546  
Extraction Date: 12/31/22 07:21

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 02-04 Batch: WG1729082-1					
TPH (C10-C36)	ND		ug/kg	33100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	69		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8015D(M)  
Analytical Date: 01/04/23 10:18  
Analyst: SC

Extraction Method: EPA 3540C  
Extraction Date: 01/03/23 01:30

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 05-06 Batch: WG1729300-1					
TPH (C10-C36)	ND		ug/kg	87100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	84		40-140

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 1,8015D(M)  
Analytical Date: 01/08/23 12:38  
Analyst: SR

Extraction Method: EPA 3546  
Extraction Date: 01/06/23 13:41

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01 Batch: WG1730756-1					
TPH (C10-C36)	ND		ug/kg	32600	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	84		40-140

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 02-04 Batch: WG1729082-2								
TPH (C10-C36)	60		-		40-140	-		40

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
o-Terphenyl	53				40-140

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 05-06 Batch: WG1729300-2								
TPH (C10-C36)	93		-		40-140	-		40

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
o-Terphenyl	76				40-140



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01 Batch: WG1730756-2								
TPH (C10-C36)	77		-		40-140	-		40

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
o-Terphenyl	79				40-140

### Lab Duplicate Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 05-06 QC Batch ID: WG1729300-3 QC Sample: L2273023-05 Client ID: SP-CONCRETE-A						

TPH (C10-C36)	215000	226000	ug/kg	5		40
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Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	72		76		40-140

Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1730756-3 QC Sample: L2273023-01 Client ID: SP-GRAVEL-A						
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TPH (C10-C36)	917000	526000	ug/kg	54	Q	40
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Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	108		101		40-140

# PCBS

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 97,8082A  
 Analytical Date: 01/03/23 08:57  
 Analyst: MEO  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 12:32  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 01/02/23  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 01/02/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	35.8	--	1	A
Aroclor 1221	ND		ug/kg	35.8	--	1	A
Aroclor 1232	ND		ug/kg	35.8	--	1	A
Aroclor 1242	ND		ug/kg	35.8	--	1	A
Aroclor 1248	ND		ug/kg	35.8	--	1	A
Aroclor 1254	ND		ug/kg	35.8	--	1	A
Aroclor 1260	118		ug/kg	35.8	--	1	B
Aroclor 1262	ND		ug/kg	35.8	--	1	A
Aroclor 1268	ND		ug/kg	35.8	--	1	A
PCBs, Total	118		ug/kg	35.8	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	65		30-150	A

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-02  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 97,8082A  
 Analytical Date: 01/03/23 09:05  
 Analyst: MEO  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 12:32  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 01/02/23  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 01/02/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	35.9	--	1	A
Aroclor 1221	ND		ug/kg	35.9	--	1	A
Aroclor 1232	ND		ug/kg	35.9	--	1	A
Aroclor 1242	ND		ug/kg	35.9	--	1	A
Aroclor 1248	ND		ug/kg	35.9	--	1	A
Aroclor 1254	ND		ug/kg	35.9	--	1	A
Aroclor 1260	141		ug/kg	35.9	--	1	B
Aroclor 1262	ND		ug/kg	35.9	--	1	A
Aroclor 1268	ND		ug/kg	35.9	--	1	A
PCBs, Total	141		ug/kg	35.9	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	74		30-150	B
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	62		30-150	A

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-03  
**Client ID:** SP-GRAVEL-C  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 09:35  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 97,8082A  
**Analytical Date:** 01/03/23 09:14  
**Analyst:** MEO  
**Percent Solids:** 92%

**Extraction Method:** EPA 3546  
**Extraction Date:** 12/31/22 12:32  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 01/02/23  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 01/02/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	35.8	--	1	A
Aroclor 1221	ND		ug/kg	35.8	--	1	A
Aroclor 1232	ND		ug/kg	35.8	--	1	A
Aroclor 1242	ND		ug/kg	35.8	--	1	A
Aroclor 1248	ND		ug/kg	35.8	--	1	A
Aroclor 1254	ND		ug/kg	35.8	--	1	A
Aroclor 1260	128		ug/kg	35.8	--	1	B
Aroclor 1262	ND		ug/kg	35.8	--	1	A
Aroclor 1268	ND		ug/kg	35.8	--	1	A
PCBs, Total	128		ug/kg	35.8	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	93		30-150	B
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	53		30-150	A

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-04 D  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 97,8082A  
 Analytical Date: 01/03/23 11:24  
 Analyst: MEO  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 12/31/22 12:32  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 01/02/23  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 01/02/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	2150	--	20	A
Aroclor 1221	ND		ug/kg	2150	--	20	A
Aroclor 1232	ND		ug/kg	2150	--	20	A
Aroclor 1242	ND		ug/kg	2150	--	20	A
Aroclor 1248	ND		ug/kg	2150	--	20	A
Aroclor 1254	ND		ug/kg	2150	--	20	A
Aroclor 1260	8240		ug/kg	2150	--	20	B
Aroclor 1262	ND		ug/kg	2150	--	20	A
Aroclor 1268	ND		ug/kg	2150	--	20	A
PCBs, Total	8240		ug/kg	2150	--	20	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

Lab ID: L2273023-05  
 Client ID: SP-CONCRETE-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 11:20  
 Date Received: 12/30/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Solid  
 Analytical Method: 97,8082A  
 Analytical Date: 01/04/23 19:18  
 Analyst: AD  
 Percent Solids: 97%

Extraction Method: EPA 3540C  
 Extraction Date: 01/03/23 14:45  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 01/04/23  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 01/04/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	59.5	--	1	A
Aroclor 1221	ND		ug/kg	59.5	--	1	A
Aroclor 1232	ND		ug/kg	59.5	--	1	A
Aroclor 1242	ND		ug/kg	59.5	--	1	A
Aroclor 1248	ND		ug/kg	39.7	--	1	A
Aroclor 1254	ND		ug/kg	59.5	--	1	A
Aroclor 1260	53.2		ug/kg	39.7	--	1	B
Aroclor 1262	ND		ug/kg	19.8	--	1	A
Aroclor 1268	ND		ug/kg	19.8	--	1	A
PCBs, Total	53.2		ug/kg	19.8	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	81		30-150	B
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	57		30-150	A



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-06  
**Client ID:** SP-CONCRETE-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 12:00  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Solid  
**Analytical Method:** 97,8082A  
**Analytical Date:** 01/04/23 19:26  
**Analyst:** AD  
**Percent Solids:** 96%

**Extraction Method:** EPA 3540C  
**Extraction Date:** 01/03/23 14:45  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 01/04/23  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 01/04/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	57.0	--	1	A
Aroclor 1221	ND		ug/kg	57.0	--	1	A
Aroclor 1232	ND		ug/kg	57.0	--	1	A
Aroclor 1242	ND		ug/kg	57.0	--	1	A
Aroclor 1248	ND		ug/kg	38.0	--	1	A
Aroclor 1254	ND		ug/kg	57.0	--	1	A
Aroclor 1260	74.7		ug/kg	38.0	--	1	B
Aroclor 1262	ND		ug/kg	19.0	--	1	A
Aroclor 1268	ND		ug/kg	19.0	--	1	A
PCBs, Total	74.7		ug/kg	19.0	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	56		30-150	A

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8082A  
Analytical Date: 01/03/23 08:23  
Analyst: MEO

Extraction Method: EPA 3546  
Extraction Date: 12/31/22 12:32  
Cleanup Method: EPA 3665A  
Cleanup Date: 01/02/23  
Cleanup Method: EPA 3660B  
Cleanup Date: 01/02/23

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-04 Batch: WG1729133-1						
Aroclor 1016	ND		ug/kg	32.9	--	A
Aroclor 1221	ND		ug/kg	32.9	--	A
Aroclor 1232	ND		ug/kg	32.9	--	A
Aroclor 1242	ND		ug/kg	32.9	--	A
Aroclor 1248	ND		ug/kg	32.9	--	A
Aroclor 1254	ND		ug/kg	32.9	--	A
Aroclor 1260	ND		ug/kg	32.9	--	A
Aroclor 1262	ND		ug/kg	32.9	--	A
Aroclor 1268	ND		ug/kg	32.9	--	A
PCBs, Total	ND		ug/kg	32.9	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	63		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	64		30-150	A

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

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

Analytical Method: 97,8082A  
Analytical Date: 01/04/23 18:54  
Analyst: AD

Extraction Method: EPA 3540C  
Extraction Date: 01/03/23 14:45  
Cleanup Method: EPA 3665A  
Cleanup Date: 01/04/23  
Cleanup Method: EPA 3660B  
Cleanup Date: 01/04/23

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 05-06 Batch: WG1729557-1						
Aroclor 1016	ND		ug/kg	58.2	--	A
Aroclor 1221	ND		ug/kg	58.2	--	A
Aroclor 1232	ND		ug/kg	58.2	--	A
Aroclor 1242	ND		ug/kg	58.2	--	A
Aroclor 1248	ND		ug/kg	38.8	--	A
Aroclor 1254	ND		ug/kg	58.2	--	A
Aroclor 1260	ND		ug/kg	38.8	--	A
Aroclor 1262	ND		ug/kg	19.4	--	A
Aroclor 1268	ND		ug/kg	19.4	--	A
PCBs, Total	ND		ug/kg	19.4	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	78		30-150	B
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	76		30-150	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2273023

Report Date: 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-04 Batch: WG1729133-2 WG1729133-3									
Aroclor 1016	72		78		40-140	8		30	A
Aroclor 1260	66		72		40-140	9		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		78		30-150	B
Decachlorobiphenyl	68		72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		77		30-150	A
Decachlorobiphenyl	66		73		30-150	A

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 05-06 Batch: WG1729557-2 WG1729557-3									
Aroclor 1016	97		95		40-140	2		30	A
Aroclor 1260	82		82		40-140	0		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		86		30-150	B
Decachlorobiphenyl	77		80		30-150	B
2,4,5,6-Tetrachloro-m-xylene	88		87		30-150	A
Decachlorobiphenyl	76		78		30-150	A

## METALS

Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Antimony, Total	3.26		mg/kg	2.08	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Arsenic, Total	16.6		mg/kg	0.416	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Barium, Total	80.7		mg/kg	0.416	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Beryllium, Total	0.442		mg/kg	0.208	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Cadmium, Total	0.557		mg/kg	0.416	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Chromium, Total	25.9		mg/kg	0.416	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Lead, Total	172		mg/kg	2.08	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Mercury, Total	0.114		mg/kg	0.079	--	1	01/03/23 10:47	01/04/23 20:52	EPA 7471B	97,7471B	DMB
Nickel, Total	179		mg/kg	1.04	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Selenium, Total	ND		mg/kg	2.08	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Silver, Total	0.540		mg/kg	0.416	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Thallium, Total	ND		mg/kg	2.08	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Vanadium, Total	493		mg/kg	0.416	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB
Zinc, Total	551		mg/kg	2.08	--	1	01/03/23 10:27	01/03/23 13:26	EPA 3050B	97,6010D	DMB



Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-02  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Antimony, Total	2.07		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Arsenic, Total	7.02		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Barium, Total	38.5		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Beryllium, Total	0.320		mg/kg	0.204	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Cadmium, Total	ND		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Chromium, Total	15.8		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Lead, Total	105		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Mercury, Total	0.216		mg/kg	0.085	--	1	01/03/23 10:47	01/04/23 21:01	EPA 7471B	97,7471B	DMB
Nickel, Total	89.1		mg/kg	1.02	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Selenium, Total	ND		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Silver, Total	ND		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Thallium, Total	ND		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Vanadium, Total	280		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB
Zinc, Total	386		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:31	EPA 3050B	97,6010D	DMB





Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-03  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Antimony, Total	2.36		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Arsenic, Total	7.15		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Barium, Total	51.5		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Beryllium, Total	0.510		mg/kg	0.204	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Cadmium, Total	1.20		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Chromium, Total	18.9		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Lead, Total	109		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Mercury, Total	ND		mg/kg	0.075	--	1	01/03/23 10:47	01/04/23 21:05	EPA 7471B	97,7471B	DMB
Nickel, Total	211		mg/kg	1.02	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Selenium, Total	ND		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Silver, Total	ND		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Thallium, Total	ND		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Vanadium, Total	583		mg/kg	0.409	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB
Zinc, Total	702		mg/kg	2.04	--	1	01/03/23 10:27	01/03/23 13:35	EPA 3050B	97,6010D	DMB



Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-04  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Antimony, Total	3.18		mg/kg	2.12	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Arsenic, Total	10.9		mg/kg	0.425	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Barium, Total	102		mg/kg	0.425	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Beryllium, Total	0.434		mg/kg	0.212	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Cadmium, Total	1.22		mg/kg	0.425	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Chromium, Total	41.5		mg/kg	0.425	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Lead, Total	378		mg/kg	2.12	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Mercury, Total	0.112		mg/kg	0.084	--	1	01/03/23 10:47	01/04/23 21:08	EPA 7471B	97,7471B	DMB
Nickel, Total	462		mg/kg	1.06	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Selenium, Total	ND		mg/kg	2.12	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Silver, Total	ND		mg/kg	0.425	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Thallium, Total	ND		mg/kg	2.12	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Vanadium, Total	1130		mg/kg	0.425	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB
Zinc, Total	470		mg/kg	2.12	--	1	01/03/23 10:27	01/03/23 13:40	EPA 3050B	97,6010D	DMB



Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-05

Date Collected: 12/30/22 11:20

Client ID: SP-CONCRETE-A

Date Received: 12/30/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Antimony, Total	ND		mg/kg	1.95	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Arsenic, Total	5.95		mg/kg	0.390	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Barium, Total	59.6		mg/kg	0.390	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Beryllium, Total	0.391		mg/kg	0.195	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Cadmium, Total	ND		mg/kg	0.390	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Chromium, Total	13.3		mg/kg	0.390	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Lead, Total	62.6		mg/kg	1.95	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Mercury, Total	ND		mg/kg	0.068	--	1	01/03/23 10:47	01/04/23 21:11	EPA 7471B	97,7471B	DMB
Nickel, Total	24.8		mg/kg	0.975	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Selenium, Total	ND		mg/kg	1.95	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Silver, Total	ND		mg/kg	0.390	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Thallium, Total	ND		mg/kg	1.95	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Vanadium, Total	53.4		mg/kg	0.390	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB
Zinc, Total	159		mg/kg	1.95	--	1	01/03/23 10:27	01/03/23 13:44	EPA 3050B	97,6010D	DMB



Project Name: 776 SUMMER ST.

Lab Number: L2273023

Project Number: 4867.02

Report Date: 01/10/23

## SAMPLE RESULTS

Lab ID: L2273023-06

Date Collected: 12/30/22 12:00

Client ID: SP-CONCRETE-B

Date Received: 12/30/22

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Antimony, Total	ND		mg/kg	1.96	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Arsenic, Total	6.82		mg/kg	0.392	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Barium, Total	67.8		mg/kg	0.392	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Beryllium, Total	0.332		mg/kg	0.196	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Cadmium, Total	ND		mg/kg	0.392	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Chromium, Total	12.5		mg/kg	0.392	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Lead, Total	142		mg/kg	1.96	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Mercury, Total	ND		mg/kg	0.079	--	1	01/03/23 10:47	01/04/23 21:15	EPA 7471B	97,7471B	DMB
Nickel, Total	18.4		mg/kg	0.980	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Selenium, Total	ND		mg/kg	1.96	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Silver, Total	ND		mg/kg	0.392	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Thallium, Total	ND		mg/kg	1.96	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Vanadium, Total	44.7		mg/kg	0.392	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB
Zinc, Total	171		mg/kg	1.96	--	1	01/03/23 10:27	01/03/23 13:49	EPA 3050B	97,6010D	DMB



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG1729230-1									
Antimony, Total	ND	mg/kg	2.00	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Arsenic, Total	ND	mg/kg	0.400	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Barium, Total	ND	mg/kg	0.400	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Beryllium, Total	ND	mg/kg	0.200	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Cadmium, Total	ND	mg/kg	0.400	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Chromium, Total	ND	mg/kg	0.400	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Lead, Total	ND	mg/kg	2.00	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Nickel, Total	ND	mg/kg	1.00	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Selenium, Total	ND	mg/kg	2.00	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Silver, Total	ND	mg/kg	0.400	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Thallium, Total	ND	mg/kg	2.00	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Vanadium, Total	ND	mg/kg	0.400	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB
Zinc, Total	ND	mg/kg	2.00	--	1	01/03/23 10:27	01/03/23 13:13	97,6010D	DMB

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG1729232-1									
Mercury, Total	ND	mg/kg	0.083	--	1	01/03/23 10:47	01/04/23 20:42	97,7471B	DMB

### Prep Information

Digestion Method: EPA 7471B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2273023

Report Date: 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG1729230-2 WG1729230-3 SRM Lot Number: D116-540								
Antimony, Total	194		203		2-205	5		30
Arsenic, Total	107		108		82-119	1		30
Barium, Total	88		90		82-118	2		30
Beryllium, Total	94		101		82-118	7		30
Cadmium, Total	97		101		82-118	4		30
Chromium, Total	94		98		81-118	4		30
Lead, Total	99		99		83-117	0		30
Nickel, Total	98		103		82-118	5		30
Selenium, Total	104		107		78-122	3		30
Silver, Total	98		101		79-121	3		30
Thallium, Total	99		101		80-120	2		30
Vanadium, Total	98		100		78-122	2		30
Zinc, Total	101		105		80-120	4		30
MCP Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG1729232-2 WG1729232-3 SRM Lot Number: D116-540								
Mercury, Total	89		104		58-142	16		30

# **INORGANICS & MISCELLANEOUS**

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### SAMPLE RESULTS

**Lab ID:** L2273023-01  
**Client ID:** SP-GRAVEL-A  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 08:45  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

### Test Material Information

**Source of Material:** Unknown  
**Description of Material:** Non-Metallic - Damp Soil  
**Particle Size:** Coarse  
**Preliminary Burning Time (sec):** 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	01/06/23 17:30	1,1030	TL





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### SAMPLE RESULTS

**Lab ID:** L2273023-02  
**Client ID:** SP-GRAVEL-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 08:55  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

### Test Material Information

**Source of Material:** Unknown  
**Description of Material:** Non-Metallic - Damp Soil  
**Particle Size:** Coarse  
**Preliminary Burning Time (sec):** 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	01/06/23 17:30	1,1030	TL



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### SAMPLE RESULTS

**Lab ID:** L2273023-03  
**Client ID:** SP-GRAVEL-C  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 09:35  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

### Test Material Information

**Source of Material:** Unknown  
**Description of Material:** Non-Metallic - Damp Soil  
**Particle Size:** Coarse  
**Preliminary Burning Time (sec):** 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	01/06/23 17:30	1,1030	TL



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### SAMPLE RESULTS

**Lab ID:** L2273023-04  
**Client ID:** SP-GRAVEL-D  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 10:10  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

### Test Material Information

**Source of Material:** Unknown  
**Description of Material:** Non-Metallic - Damp Soil  
**Particle Size:** Coarse  
**Preliminary Burning Time (sec):** 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	01/06/23 17:30	1,1030	TL



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### SAMPLE RESULTS

**Lab ID:** L2273023-05  
**Client ID:** SP-CONCRETE-A  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 11:20  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Solid

### Test Material Information

**Source of Material:** Unknown  
**Description of Material:** Non-Metallic - Dry Soil  
**Particle Size:** Coarse  
**Preliminary Burning Time (sec):** 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	01/06/23 17:30	1,1030	TL



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

### SAMPLE RESULTS

**Lab ID:** L2273023-06  
**Client ID:** SP-CONCRETE-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 12:00  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Solid

### Test Material Information

**Source of Material:** Unknown  
**Description of Material:** Non-Metallic - Dry Soil  
**Particle Size:** Coarse  
**Preliminary Burning Time (sec):** 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	01/06/23 17:30	1,1030	TL



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-01  
**Client ID:** SP-GRAVEL-A  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 08:45  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Specific Conductance @ 25 C	68		umhos/cm	10	--	1	-	01/03/23 22:37	1,9050A	AAS
Solids, Total	90.8		%	0.100	NA	1	-	12/31/22 10:04	121,2540G	RI
pH (H)	9.7		SU	-	NA	1	-	01/03/23 18:57	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 15:08	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 14:49	125,7.3	MJ



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-02  
**Client ID:** SP-GRAVEL-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 08:55  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Specific Conductance @ 25 C	87		umhos/cm	10	--	1	-	01/03/23 22:37	1,9050A	AAS
Solids, Total	92.2		%	0.100	NA	1	-	12/31/22 10:04	121,2540G	RI
pH (H)	10		SU	-	NA	1	-	01/03/23 18:57	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 15:08	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 14:49	125,7.3	MJ



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-03  
**Client ID:** SP-GRAVEL-C  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 09:35  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Specific Conductance @ 25 C	76		umhos/cm	10	--	1	-	01/03/23 22:37	1,9050A	AAS
Solids, Total	92.3		%	0.100	NA	1	-	12/31/22 10:04	121,2540G	RI
pH (H)	9.5		SU	-	NA	1	-	01/03/23 18:57	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 15:09	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 14:50	125,7.3	MJ





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-04  
**Client ID:** SP-GRAVEL-D  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 10:10  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Specific Conductance @ 25 C	22		umhos/cm	10	--	1	-	01/03/23 22:37	1,9050A	AAS
Solids, Total	89.8		%	0.100	NA	1	-	12/31/22 10:04	121,2540G	RI
pH (H)	7.9		SU	-	NA	1	-	01/03/23 18:57	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 15:09	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 14:50	125,7.3	MJ



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

**SAMPLE RESULTS**

**Lab ID:** L2273023-05  
**Client ID:** SP-CONCRETE-A  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 11:20  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Specific Conductance @ 25 C	500		umhos/cm	10	--	1	-	01/03/23 22:37	1,9050A	AAS
Solids, Total	96.9		%	0.100	NA	1	-	12/31/22 10:04	121,2540G	RI
pH (H)	11.5		SU	-	NA	1	-	01/03/23 18:57	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 15:11	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 14:51	125,7.3	MJ



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
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**SAMPLE RESULTS**

**Lab ID:** L2273023-06  
**Client ID:** SP-CONCRETE-B  
**Sample Location:** BOSTON, MA

**Date Collected:** 12/30/22 12:00  
**Date Received:** 12/30/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Specific Conductance @ 25 C	110		umhos/cm	10	--	1	-	01/03/23 22:37	1,9050A	AAS
Solids, Total	96.1		%	0.100	NA	1	-	12/31/22 10:04	121,2540G	RI
pH (H)	11.1		SU	-	NA	1	-	01/03/23 18:57	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 15:11	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	01/03/23 13:48	01/03/23 14:52	125,7.3	MJ



Project Name: 776 SUMMER ST.

Lab Number: L2273023

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**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): 01-06 Batch: WG1729392-1									
Sulfide, Reactive	ND	mg/kg	10	--	1	01/03/23 13:48	01/03/23 14:46	125,7.3	MJ
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG1729396-1									
Cyanide, Reactive	ND	mg/kg	10	--	1	01/03/23 13:48	01/03/23 15:06	125,7.3	MJ

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 776 SUMMER ST.

**Project Number:** 4867.02

**Lab Number:** L2273023

**Report Date:** 01/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG1729392-2								
Sulfide, Reactive	101		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG1729396-2								
Cyanide, Reactive	47		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG1729628-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG1729659-1								
Specific Conductance	101		-		99-101	-		

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Serial\_No:**01102317:14  
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**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

**Cooler**                      **Custody Seal**  
A                                      Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2273023-01A	Vial MeOH preserved	A	NA		4.4	Y	Absent		MCP-8260HLW-21(14)
L2273023-01B	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-01C	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-01D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L2273023-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-TL-6010T-10(180),MCP-CD-6010T-10(180),MCP-ZN-6010T-10(180),MCP-SB-6010T-10(180),MCP-AG-6010T-10(180),MCP-BE-6010T-10(180),MCP-SE-6010T-10(180),MCP-V-6010T-10(180),MCP-BA-6010T-10(180),MCP-NI-6010T-10(180),MCP-PB-6010T-10(180)
L2273023-01F	Glass 250ml/8oz unpreserved	A	NA		4.4	Y	Absent		IGNIT-1030(14),REACTS(14),MCP-8082-10(365),PH-9045(1),MCP-8270-21(14),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L2273023-01F1	Glass 500ml unpreserved split	A	NA		4.4	Y	Absent		IGNIT-1030(14),REACTS(14),MCP-8082-10(365),PH-9045(1),MCP-8270-21(14),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L2273023-02A	Vial MeOH preserved	A	NA		4.4	Y	Absent		MCP-8260HLW-21(14)
L2273023-02B	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-02C	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-02D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L2273023-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),MCP-TL-6010T-10(180),MCP-AG-6010T-10(180),MCP-SB-6010T-10(180),MCP-ZN-6010T-10(180),MCP-BE-6010T-10(180),MCP-SE-6010T-10(180),MCP-V-6010T-10(180),MCP-BA-6010T-10(180),MCP-NI-6010T-10(180),MCP-PB-6010T-10(180)

\*Values in parentheses indicate holding time in days



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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2273023-02F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		IGNIT-1030(14),MCP-8082-10(365),REACTS(14),PH-9045(1),MCP-8270-21(14),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L2273023-03A	Vial MeOH preserved	A	NA		4.4	Y	Absent		MCP-8260HLW-21(14)
L2273023-03B	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-03C	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-03D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L2273023-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-TL-6010T-10(180),MCP-CD-6010T-10(180),MCP-7471T-10(28),MCP-AG-6010T-10(180),MCP-ZN-6010T-10(180),MCP-SB-6010T-10(180),MCP-SE-6010T-10(180),MCP-BE-6010T-10(180),MCP-V-6010T-10(180),MCP-BA-6010T-10(180),MCP-NI-6010T-10(180),MCP-PB-6010T-10(180)
L2273023-03F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		REACTS(14),MCP-8082-10(365),IGNIT-1030(14),PH-9045(1),MCP-8270-21(14),TPH-DRO-D(14),REACTCN(14),COND-9050(28)
L2273023-04A	Vial MeOH preserved	A	NA		4.4	Y	Absent		MCP-8260HLW-21(14)
L2273023-04B	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-04C	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-04D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L2273023-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-TL-6010T-10(180),MCP-CD-6010T-10(180),MCP-7471T-10(28),MCP-AG-6010T-10(180),MCP-SB-6010T-10(180),MCP-ZN-6010T-10(180),MCP-BE-6010T-10(180),MCP-SE-6010T-10(180),MCP-V-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180),MCP-NI-6010T-10(180)
L2273023-04F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		IGNIT-1030(14),REACTS(14),MCP-8082-10(365),PH-9045(1),MCP-8270-21(14),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L2273023-05A	Vial MeOH preserved	A	NA		4.4	Y	Absent		MCP-8260HLW-21(14)
L2273023-05B	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-05C	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-05D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)

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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2273023-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-TL-6010T-10(180),MCP-CD-6010T-10(180),MCP-7471T-10(28),MCP-AG-6010T-10(180),MCP-ZN-6010T-10(180),MCP-SB-6010T-10(180),MCP-BE-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-V-6010T-10(180),MCP-PB-6010T-10(180),MCP-NI-6010T-10(180)
L2273023-05F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		REACTS(14),IGNIT-1030(14),MCP-8270CNCRT-21(14),MCP-8082LL-CNCRT(365),PH-9045(1),TPH-DROD(14),REACTCN(14),COND-9050(28)
L2273023-06A	Vial MeOH preserved	A	NA		4.4	Y	Absent		MCP-8260HLW-21(14)
L2273023-06B	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-06C	Vial water preserved	A	NA		4.4	Y	Absent	30-DEC-22 16:13	MCP-8260HLW-21(14)
L2273023-06D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L2273023-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-TL-6010T-10(180),MCP-CD-6010T-10(180),MCP-7471T-10(28),MCP-AG-6010T-10(180),MCP-SB-6010T-10(180),MCP-ZN-6010T-10(180),MCP-BE-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-V-6010T-10(180),MCP-NI-6010T-10(180),MCP-PB-6010T-10(180)
L2273023-06F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		IGNIT-1030(14),REACTS(14),MCP-8270CNCRT-21(14),MCP-8082LL-CNCRT(365),PH-9045(1),TPH-DROD(14),REACTCN(14),COND-9050(28)

\*Values in parentheses indicate holding time in days





**Project Name:** 776 SUMMER ST.  
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## 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



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### Footnotes

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

### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

#### **Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2273023  
**Report Date:** 01/10/23

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

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

**EPA 625/625.1:** alpha-Terpineol

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

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

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

### Mansfield Facility

**SM 2540D:** TSS

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

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

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

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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

PAGE 1 OF 1

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

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

Date Rec'd in Lab: 12/30/22

ALPHA Job #: 22273023

## Project Information

Project Name: 776 Sumner St.

Project Location: Boston, MA

Project #: 4867.02

Project Manager: Adam Coen

ALPHA Quote #:

## Report Information - Data Deliverables

ADEx  EMAIL

## Billing Information

Same as Client info PO #: 4867.02

## Client Information

Client: Sanborn Head and ASSOC

Address: 1 Technology Park Dr.  
Westford MA 01586

Phone: 857-327-9736

Email: acoen; Hsanderson; abaker

Additional Project Information:

@SanbornHead.com

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due:

## Regulatory Requirements & Project Information Requirements

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

ANALYSIS		SAMPLE INFO	
VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	Filtration	<input type="checkbox"/> Field <input type="checkbox"/> Lab to do
METALS: <input type="checkbox"/> MCP 13 <input checked="" type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13	Preservation	<input type="checkbox"/> Lab to do
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
SMP IV		Sample Comments	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
73023-01	SP-Gravel - A	12/30/22	8:45	Soil	ACB
02	SP-Gravel - B		8:55		
03	SP-Gravel - C		9:35		
04	SP-Gravel - D		10:10		
05	SP-Concrete - A		11:20	Concrete	
06	SP-Concrete - B		12:00		

- Container Type**  
 P= Plastic  
 A= Amber glass  
 V= Vial  
 G= Glass  
 B= Bacteria cup  
 C= Cube  
 O= Other  
 E= Encore  
 D= BOD Bottle
- Preservative**  
 A= None  
 B= HCl  
 C= HNO<sub>3</sub>  
 D= H<sub>2</sub>SO<sub>4</sub>  
 E= NaOH  
 F= MeOH  
 G= NaHSO<sub>4</sub>  
 H= Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub>  
 I= Ascorbic Acid  
 J= NH<sub>4</sub>Cl  
 K= Zn Acetate  
 O= Other

Container Type	AG
Preservative	AG

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	12/30/22 14:00	<i>[Signature]</i>	12/30/22

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

**Method Blank Summary  
Form 4  
Volatiles**

<b>Client</b>	<b>: Sanborn, Head &amp; Associates, Inc.</b>	<b>Lab Number</b>	<b>: L2273023</b>
<b>Project Name</b>	<b>: 776 SUMMER ST.</b>	<b>Project Number</b>	<b>: 4867.02</b>
<b>Lab Sample ID</b>	<b>: WG1729950-5</b>	<b>Lab File ID</b>	<b>: V27230104A05</b>
<b>Instrument ID</b>	<b>: VOA127</b>		
<b>Matrix</b>	<b>: SOIL</b>	<b>Analysis Date</b>	<b>: 01/04/23 09:51</b>

<b>Client Sample No.</b>	<b>Lab Sample ID</b>	<b>Analysis Date</b>
WG1729950-3LCS	WG1729950-3	01/04/23 08:33
WG1729950-4LCSD	WG1729950-4	01/04/23 08:52
SP-GRAVEL-B	L2273023-02	01/04/23 14:45
SP-GRAVEL-C	L2273023-03	01/04/23 15:04
SP-CONCRETE-A	L2273023-05	01/04/23 15:44
SP-CONCRETE-B	L2273023-06	01/04/23 16:03

# Method Blank Summary

## Form 4

### Volatiles

Client : Sanborn, Head & Associates, Inc.      Lab Number : L2273023  
Project Name : 776 SUMMER ST.      Project Number : 4867.02  
Lab Sample ID : WG1731012-5      Lab File ID : V10230106B05  
Instrument ID : VOA110  
Matrix : SOIL      Analysis Date : 01/06/23 12:31

Client Sample No.	Lab Sample ID	Analysis Date
WG1731012-3LCS	WG1731012-3	01/06/23 11:09
WG1731012-4LCSD	WG1731012-4	01/06/23 11:36
SP-GRAVEL-D	L2273023-04	01/06/23 14:47
SP-GRAVEL-A	L2273023-01	01/06/23 15:14



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA127  
 Lab File ID : V27230104A01  
 Sample No : WG1729950-2  
 Channel :

Lab Number : L2273023  
 Project Number : 4867.02  
 Calibration Date : 01/04/23 08:33  
 Init. Calib. Date(s) : 12/27/22 12/28/22  
 Init. Calib. Times : 23:11 01:48

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	93	0
Dichlorodifluoromethane	40	34.808	-	13	20	84	0
Chloromethane	0.24	0.224	-	6.7	20	90	0
Vinyl chloride	0.261	0.234	-	10.3	20	86	0
Bromomethane	40	39.049	-	2.4	20	84	0
Chloroethane	0.131	0.128	-	2.3	20	89	0
Trichlorofluoromethane	0.337	0.308	-	8.6	20	88	0
Ethyl ether	0.101	0.092	-	8.9	20	84	0
1,1-Dichloroethene	0.201	0.192	-	4.5	20	91	0
Carbon disulfide	0.404	0.377	-	6.7	20	90	0
Freon-113	0.221	0.202	-	8.6	20	89	0
Acrolein	0.04	0.035	-	12.5	20	82	0
Methylene chloride	40	37.952	-	5.1	20	87	0
Acetone	0.078	0.07	-	10.3	20	88	0
trans-1,2-Dichloroethene	0.241	0.227	-	5.8	20	92	0
Methyl acetate	0.172	0.163	-	5.2	20	87	0
Methyl tert-butyl ether	0.544	0.526	-	3.3	20	86	0
tert-Butyl alcohol	0.037	0.032	-	13.5	20	87	-0.01
Diisopropyl ether	0.837	0.793	-	5.3	20	85	0
1,1-Dichloroethane	0.455	0.423	-	7	20	88	0
Halothane	0.188	0.173	-	8	20	89	-0.01
Acrylonitrile	0.085	0.077	-	9.4	20	86	0
Ethyl tert-butyl ether	0.792	0.754	-	4.8	20	86	-0.01
Vinyl acetate	0.547	0.528	-	3.5	20	91	-0.01
cis-1,2-Dichloroethene	0.27	0.252	-	6.7	20	88	-0.01
2,2-Dichloropropane	0.384	0.365	-	4.9	20	92	0
Bromochloromethane	0.132	0.127	-	3.8	20	88	0
Cyclohexane	0.486	0.438	-	9.9	20	86	0
Chloroform	0.426	0.407	-	4.5	20	89	-0.01
Ethyl acetate	0.243	0.241	-	0.8	20	84	-0.01
Carbon tetrachloride	0.343	0.317	-	7.6	20	88	0
Tetrahydrofuran	0.073	0.068	-	6.8	20	89	-0.01
Dibromofluoromethane	0.281	0.273	-	2.8	20	94	0
1,1,1-Trichloroethane	0.375	0.354	-	5.6	20	91	-0.01
2-Butanone	0.128	0.111	-	13.3	20	79	-0.01
1,1-Dichloropropene	0.301	0.291	-	3.3	20	87	0
Benzene	0.902	0.851	-	5.7	20	87	0
tert-Amyl methyl ether	0.632	0.598	-	5.4	20	86	0
1,2-Dichloroethane-d4	0.309	0.298	-	3.6	20	93	0
1,2-Dichloroethane	0.343	0.325	-	5.2	20	87	-0.01
Methyl cyclohexane	0.421	0.375	-	10.9	20	85	0
Trichloroethene	0.255	0.241	-	5.5	20	87	0
Dibromomethane	0.151	0.142	-	6	20	88	-0.01

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA127  
 Lab File ID : V27230104A01  
 Sample No : WG1729950-2  
 Channel :

Lab Number : L2273023  
 Project Number : 4867.02  
 Calibration Date : 01/04/23 08:33  
 Init. Calib. Date(s) : 12/27/22 12/28/22  
 Init. Calib. Times : 23:11 01:48

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.262	0.25	-	4.6	20	85	0
2-Chloroethyl vinyl ether	0.14	0.136	-	2.9	20	84	0
Bromodichloromethane	0.34	0.313	-	7.9	20	85	0
1,4-Dioxane	0.00248	0.00223*	-	10.1	20	82	0
cis-1,3-Dichloropropene	0.381	0.374	-	1.8	20	86	0
Chlorobenzene-d5	1	1	-	0	20	94	0
Toluene-d8	1.277	1.283	-	-0.5	20	95	0
Toluene	0.752	0.709	-	5.7	20	87	0
4-Methyl-2-pentanone	0.127	0.11	-	13.4	20	86	0
Tetrachloroethene	0.322	0.315	-	2.2	20	90	0
trans-1,3-Dichloropropene	0.453	0.439	-	3.1	20	85	0
Ethyl methacrylate	0.353	0.33	-	6.5	20	86	0
1,1,2-Trichloroethane	0.212	0.204	-	3.8	20	84	0
Chlorodibromomethane	0.325	0.313	-	3.7	20	84	0
1,3-Dichloropropane	0.432	0.425	-	1.6	20	86	0
1,2-Dibromoethane	0.26	0.258	-	0.8	20	87	0
2-Hexanone	0.241	0.21	-	12.9	20	84	0
Chlorobenzene	0.862	0.82	-	4.9	20	88	0
Ethylbenzene	1.426	1.373	-	3.7	20	88	0
1,1,1,2-Tetrachloroethane	0.31	0.301	-	2.9	20	85	0
p/m Xylene	0.571	0.567	-	0.7	20	90	0
o Xylene	0.538	0.529	-	1.7	20	88	0
Styrene	0.88	0.872	-	0.9	20	88	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	95	0
Bromoform	0.419	0.352	-	16	20	84	0
Isopropylbenzene	2.735	2.595	-	5.1	20	89	0
4-Bromofluorobenzene	0.903	0.894	-	1	20	95	0
Bromobenzene	0.708	0.65	-	8.2	20	86	0
n-Propylbenzene	3.241	3.102	-	4.3	20	90	0
1,4-Dichlorobutane	0.907	0.832	-	8.3	20	85	0
1,1,2,2-Tetrachloroethane	0.596	0.555	-	6.9	20	89	0
4-Ethyltoluene	2.741	2.654	-	3.2	20	91	0
2-Chlorotoluene	1.942	1.801	-	7.3	20	87	0
1,3,5-Trimethylbenzene	2.352	2.289	-	2.7	20	91	0
1,2,3-Trichloropropane	0.493	0.466	-	5.5	20	88	0
trans-1,4-Dichloro-2-buten	0.235	0.201	-	14.5	20	84	0
4-Chlorotoluene	2.015	1.928	-	4.3	20	90	0
tert-Butylbenzene	2.092	1.966	-	6	20	89	0
1,2,4-Trimethylbenzene	2.323	2.229	-	4	20	89	0
sec-Butylbenzene	2.985	2.877	-	3.6	20	90	0
p-Isopropyltoluene	2.676	2.583	-	3.5	20	90	0
1,3-Dichlorobenzene	1.377	1.315	-	4.5	20	89	0
1,4-Dichlorobenzene	1.388	1.321	-	4.8	20	90	0

\* Value outside of QC limits.



## Calibration Verification Summary Form 7 Volatiles

Client	: Sanborn, Head & Associates, Inc.	Lab Number	: L2273023
Project Name	: 776 SUMMER ST.	Project Number	: 4867.02
Instrument ID	: VOA127	Calibration Date	: 01/04/23 08:33
Lab File ID	: V27230104A01	Init. Calib. Date(s)	: 12/27/22      12/28/22
Sample No	: WG1729950-2	Init. Calib. Times	: 23:11      01:48
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.607	1.537	-	4.4	20	90	0
n-Butylbenzene	2.275	2.176	-	4.4	20	90	0
1,2-Dichlorobenzene	1.29	1.234	-	4.3	20	89	0
1,2,4,5-Tetramethylbenzene	2.263	2.139	-	5.5	20	89	0
1,2-Dibromo-3-chloropropan	0.126	0.105	-	16.7	20	86	0
1,3,5-Trichlorobenzene	0.996	0.937	-	5.9	20	89	0
Hexachlorobutadiene	0.477	0.419	-	12.2	20	87	0
1,2,4-Trichlorobenzene	0.912	0.843	-	7.6	20	88	0
Naphthalene	2.19	2.009	-	8.3	20	88	0
1,2,3-Trichlorobenzene	0.842	0.763	-	9.4	20	87	0

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\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA110  
 Lab File ID : V10230106B01  
 Sample No : WG1731012-2  
 Channel :

Lab Number : L2273023  
 Project Number : 4867.02  
 Calibration Date : 01/06/23 10:43  
 Init. Calib. Date(s) : 08/22/22 08/22/22  
 Init. Calib. Times : 19:09 23:46

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	76	0
Dichlorodifluoromethane	0.171	0.129	-	24.6*	20	58	0
Chloromethane	0.194	0.203	-	-4.6	20	84	0
Vinyl chloride	0.28	0.246	-	12.1	20	65	0
Bromomethane	0.159	0.186	-	-17	20	95	0
Chloroethane	0.253	0.23	-	9.1	20	71	0
Trichlorofluoromethane	0.452	0.422	-	6.6	20	72	0
Ethyl ether	0.194	0.143	-	26.3*	20	57	0
1,1-Dichloroethene	0.282	0.245	-	13.1	20	68	0
Carbon disulfide	0.898	0.468	-	47.9*	20	44	0
Freon-113	0.293	0.267	-	8.9	20	71	0
Acrolein	0.069	0.062	-	10.1	20	78	0
Methylene chloride	0.322	0.232	-	28*	20	52	0
Acetone	40	50.837	-	-27.1*	20	68	0
trans-1,2-Dichloroethene	0.193	0.201	-	-4.1	20	80	0
Methyl acetate	0.156	0.179	-	-14.7	20	89	0
Methyl tert-butyl ether	0.601	0.518	-	13.8	20	66	0
tert-Butyl alcohol	0.031	0.035	-	-12.9	20	82	0
Diisopropyl ether	0.631	0.704	-	-11.6	20	86	0
1,1-Dichloroethane	0.366	0.351	-	4.1	20	74	0
Halothane	0.148	0.161	-	-8.8	20	85	0
Acrylonitrile	0.068	0.077	-	-13.2	20	86	0
Ethyl tert-butyl ether	0.69	0.644	-	6.7	20	71	0
Vinyl acetate	0.465	0.541	-	-16.3	20	90	0
cis-1,2-Dichloroethene	0.233	0.226	-	3	20	74	0
2,2-Dichloropropane	0.305	0.285	-	6.6	20	73	-0.1
Bromochloromethane	0.112	0.119	-	-6.2	20	83	0
Cyclohexane	0.341	0.348	-	-2.1	20	78	0
Chloroform	0.378	0.338	-	10.6	20	69	0
Ethyl acetate	0.244	0.267	-	-9.4	20	86	0
Carbon tetrachloride	0.275	0.284	-	-3.3	20	79	0
Tetrahydrofuran	0.074	0.079	-	-6.8	20	88	0
Dibromofluoromethane	0.237	0.267	-	-12.7	20	87	-0.1
1,1,1-Trichloroethane	0.305	0.3	-	1.6	20	73	-0.1
2-Butanone	0.111	0.112	-	-0.9	20	84	0
1,1-Dichloropropene	0.275	0.258	-	6.2	20	71	-0.1
Benzene	0.881	0.795	-	9.8	20	68	0
tert-Amyl methyl ether	0.699	0.58	-	17	20	62	-0.1
1,2-Dichloroethane-d4	0.274	0.262	-	4.4	20	74	-0.1
1,2-Dichloroethane	0.302	0.276	-	8.6	20	70	0
Methyl cyclohexane	0.392	0.358	-	8.7	20	68	-0.1
Trichloroethene	0.223	0.209	-	6.3	20	71	0
Dibromomethane	0.141	0.131	-	7.1	20	69	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : VOA110  
 Lab File ID : V10230106B01  
 Sample No : WG1731012-2  
 Channel :

Lab Number : L2273023  
 Project Number : 4867.02  
 Calibration Date : 01/06/23 10:43  
 Init. Calib. Date(s) : 08/22/22 08/22/22  
 Init. Calib. Times : 19:09 23:46

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.227	0.21	-	7.5	20	71	0
2-Chloroethyl vinyl ether	0.144	0.111	-	22.9*	20	55	-.01
Bromodichloromethane	0.306	0.277*	-	9.5	20	68	0
1,4-Dioxane	0.00287	0.00309*	-	-7.7	20	79	0
cis-1,3-Dichloropropene	0.371	0.336	-	9.4	20	67	-.01
Chlorobenzene-d5	1	1	-	0	20	81	-.01
Toluene-d8	1.301	1.232	-	5.3	20	78	0
Toluene	0.767	0.641	-	16.4	20	69	0
4-Methyl-2-pentanone	0.124	0.108	-	12.9	20	67	0
Tetrachloroethene	0.297	0.295	-	0.7	20	79	0
trans-1,3-Dichloropropene	0.457	0.386	-	15.5	20	67	0
Ethyl methacrylate	0.401	0.3	-	25.2*	20	58	-.01
1,1,2-Trichloroethane	0.226	0.19*	-	15.9	20	67	0
Chlorodibromomethane	0.299	0.282	-	5.7	20	73	0
1,3-Dichloropropane	0.475	0.387	-	18.5	20	65	0
1,2-Dibromoethane	0.272	0.245	-	9.9	20	70	-.01
2-Hexanone	0.224	0.21	-	6.3	20	77	-.01
Chlorobenzene	0.833	0.751	-	9.8	20	72	-.01
Ethylbenzene	1.408	1.192	-	15.3	20	68	0
1,1,1,2-Tetrachloroethane	0.291	0.275	-	5.5	20	72	-.01
p/m Xylene	0.557	0.501	-	10.1	20	69	-.01
o Xylene	0.539	0.476	-	11.7	20	67	-.01
Styrene	0.909	0.801	-	11.9	20	65	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	82	0
Bromoform	0.422	0.364	-	13.7	20	70	0
Isopropylbenzene	2.515	2.139	-	15	20	70	-.01
4-Bromofluorobenzene	0.834	0.718	-	13.9	20	73	0
Bromobenzene	0.668	0.58	-	13.2	20	71	-.01
n-Propylbenzene	2.944	2.471	-	16.1	20	69	0
1,4-Dichlorobutane	0.817	0.683	-	16.4	20	70	0
1,1,2,2-Tetrachloroethane	0.705	0.573	-	18.7	20	67	0
4-Ethyltoluene	2.463	2.121	-	13.9	20	71	0
2-Chlorotoluene	1.754	1.431	-	18.4	20	69	0
1,3,5-Trimethylbenzene	2.133	1.832	-	14.1	20	70	0
1,2,3-Trichloropropane	0.588	0.463	-	21.3*	20	65	-.01
trans-1,4-Dichloro-2-buten	0.2	0.184	-	8	20	75	0
4-Chlorotoluene	1.793	1.475	-	17.7	20	67	0
tert-Butylbenzene	1.834	1.622	-	11.6	20	72	-.01
1,2,4-Trimethylbenzene	2.109	1.826	-	13.4	20	70	0
sec-Butylbenzene	2.71	2.429	-	10.4	20	73	0
p-Isopropyltoluene	2.327	2.133	-	8.3	20	74	0
1,3-Dichlorobenzene	1.245	1.152	-	7.5	20	76	-.01
1,4-Dichlorobenzene	1.293	1.156	-	10.6	20	74	0

\* Value outside of QC limits.



## Calibration Verification Summary Form 7 Volatiles

Client	: Sanborn, Head & Associates, Inc.	Lab Number	: L2273023
Project Name	: 776 SUMMER ST.	Project Number	: 4867.02
Instrument ID	: VOA110	Calibration Date	: 01/06/23 10:43
Lab File ID	: V10230106B01	Init. Calib. Date(s)	: 08/22/22      08/22/22
Sample No	: WG1731012-2	Init. Calib. Times	: 19:09      23:46
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.368	1.275	-	6.8	20	76	0
n-Butylbenzene	2.014	1.823	-	9.5	20	74	0
1,2-Dichlorobenzene	1.176	1.103	-	6.2	20	76	0
1,2,4,5-Tetramethylbenzene	2.05	1.917	-	6.5	20	77	0
1,2-Dibromo-3-chloropropan	0.127	0.12	-	5.5	20	77	0
1,3,5-Trichlorobenzene	0.863	0.888	-	-2.9	20	86	0
Hexachlorobutadiene	0.41	0.414	-	-1	20	83	0
1,2,4-Trichlorobenzene	0.775	0.795	-	-2.6	20	85	0
Naphthalene	2.13	2.034	-	4.5	20	78	0
1,2,3-Trichlorobenzene	0.762	0.785	-	-3	20	85	-0.1

---

\* Value outside of QC limits.





## ANALYTICAL REPORT

Lab Number:	L2301811
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.02
Report Date:	01/13/23

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2301811  
**Report Date:** 01/13/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2301811-01	SP-GRAVEL-A	SOIL	BOSTON, MA	12/30/22 08:45	12/30/22
L2301811-02	SP-GRAVEL-B	SOIL	BOSTON, MA	12/30/22 08:55	12/30/22
L2301811-03	SP-GRAVEL-C	SOIL	BOSTON, MA	12/30/22 09:35	12/30/22
L2301811-04	SP-GRAVEL-D	SOIL	BOSTON, MA	12/30/22 10:10	12/30/22
L2301811-05	SP-CONCRETE-B	SOLID	BOSTON, MA	12/30/22 12:00	12/30/22



Project Name: 776 SUMMER ST.

Lab Number: L2301811

Project Number: 4867.02

Report Date: 01/13/23

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2301811  
**Report Date:** 01/13/23

### 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.

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**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2301811  
**Report Date:** 01/13/23

### Case Narrative (continued)

MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

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

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 01/13/23

## QC OUTLIER SUMMARY REPORT

**Project Name:** 776 SUMMER ST.

**Lab Number:** L2301811

**Project Number:** 4867.02

**Report Date:** 01/13/23

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

## METALS

**Project Name:** 776 SUMMER ST.

**Lab Number:** L2301811

**Project Number:** 4867.02

**Report Date:** 01/13/23

**SAMPLE RESULTS**

Lab ID: L2301811-01  
 Client ID: SP-GRAVEL-A  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:45  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

TCLP/SPLP Ext. Date: 01/12/23 03:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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TCLP Metals by EPA 1311 - Mansfield Lab

Lead, TCLP	ND		mg/l	0.500	--	1	01/13/23 09:19	01/13/23 10:38	EPA 3015	1,6010D	JMF
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**Project Name:** 776 SUMMER ST.

**Lab Number:** L2301811

**Project Number:** 4867.02

**Report Date:** 01/13/23

**SAMPLE RESULTS**

Lab ID: L2301811-02  
 Client ID: SP-GRAVEL-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 08:55  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

TCLP/SPLP Ext. Date: 01/12/23 03:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Lead, TCLP	ND		mg/l	0.500	--	1	01/13/23 09:19	01/13/23 10:31	EPA 3015	1,6010D	JMF



**Project Name:** 776 SUMMER ST.

**Lab Number:** L2301811

**Project Number:** 4867.02

**Report Date:** 01/13/23

**SAMPLE RESULTS**

Lab ID: L2301811-03  
 Client ID: SP-GRAVEL-C  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 09:35  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

TCLP/SPLP Ext. Date: 01/12/23 03:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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TCLP Metals by EPA 1311 - Mansfield Lab

Lead, TCLP	ND		mg/l	0.500	--	1	01/13/23 09:19	01/13/23 10:34	EPA 3015	1,6010D	JMF
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**Project Name:** 776 SUMMER ST.

**Lab Number:** L2301811

**Project Number:** 4867.02

**Report Date:** 01/13/23

**SAMPLE RESULTS**

Lab ID: L2301811-04  
 Client ID: SP-GRAVEL-D  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 10:10  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil

TCLP/SPLP Ext. Date: 01/12/23 03:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>TCLP Metals by EPA 1311 - Mansfield Lab</b>											
Lead, TCLP	10.5		mg/l	0.500	--	1	01/13/23 09:19	01/13/23 11:12	EPA 3015	1,6010D	JMF



**Project Name:** 776 SUMMER ST.

**Lab Number:** L2301811

**Project Number:** 4867.02

**Report Date:** 01/13/23

**SAMPLE RESULTS**

Lab ID: L2301811-05  
 Client ID: SP-CONCRETE-B  
 Sample Location: BOSTON, MA

Date Collected: 12/30/22 12:00  
 Date Received: 12/30/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Solid

TCLP/SPLP Ext. Date: 01/12/23 03:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Lead, TCLP	ND		mg/l	0.500	--	1	01/13/23 09:19	01/13/23 11:15	EPA 3015	1,6010D	JMF



Project Name: 776 SUMMER ST.

Lab Number: L2301811

Project Number: 4867.02

Report Date: 01/13/23

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-05 Batch: WG1733024-1									
Lead, TCLP	ND	mg/l	0.500	--	1	01/13/23 09:19	01/13/23 10:20	1,6010D	JMF

### Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 01/10/23 15:04

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2301811  
**Report Date:** 01/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-05 Batch: WG1733024-2								
Lead, TCLP	96		-		75-125	-		20

**Matrix Spike Analysis**  
Batch Quality Control

Project Name: 776 SUMMER ST.

Lab Number: L2301811

Project Number: 4867.02

Report Date: 01/13/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1733024-3 QC Sample: L2301811-01 Client ID: SP-GRAVEL-A												
Lead, TCLP	ND	5.3	5.05	95		-	-		75-125	-		20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2301811

Report Date: 01/13/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1733024-4 QC Sample: L2301811-01 Client ID: SP-GRAVEL-A						
Lead, TCLP	ND	ND	mg/l	NC		20

**Project Name:** 776 SUMMER ST.**Lab Number:** L2301811**Project Number:** 4867.02**Report Date:** 01/13/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2301811-01F	Glass 500ml unpreserved split	A	NA		4.4	Y	Absent		-
L2301811-01X	Plastic 120ml HNO3 preserved Extracts	A	NA		4.4	Y	Absent		PB-CI(180)
L2301811-01X9	Tumble Vessel	A	NA		4.4	Y	Absent		-
L2301811-02F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		-
L2301811-02X	Plastic 120ml HNO3 preserved Extracts	A	NA		4.4	Y	Absent		PB-CI(180)
L2301811-02X9	Tumble Vessel	A	NA		4.4	Y	Absent		-
L2301811-03F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		-
L2301811-03X	Plastic 120ml HNO3 preserved Extracts	A	NA		4.4	Y	Absent		PB-CI(180)
L2301811-03X9	Tumble Vessel	A	NA		4.4	Y	Absent		-
L2301811-04F	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		-
L2301811-04X	Plastic 120ml HNO3 preserved Extracts	A	NA		4.4	Y	Absent		PB-CI(180)
L2301811-04X9	Tumble Vessel	A	NA		4.4	Y	Absent		-
L2301811-05F	Glass 500ml unpreserved split	A	NA		4.4	Y	Absent		-
L2301811-05X	Plastic 120ml HNO3 preserved Extracts	A	NA		4.4	Y	Absent		PB-CI(180)
L2301811-05X9	Tumble Vessel	A	NA		4.4	Y	Absent		-

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2301811  
**Report Date:** 01/13/23

## 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:** 776 SUMMER ST.  
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### Footnotes

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

### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.  
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#### **Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2301811  
**Report Date:** 01/13/23

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** 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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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**

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





## ANALYTICAL REPORT

Lab Number:	L2303585
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.02
Report Date:	02/02/23

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

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2303585-01	SH-GP-305W	OIL	BOSTON, MA	01/20/23 11:00	01/20/23
L2303585-02	SH-GP-301	OIL	BOSTON, MA	01/20/23 12:00	01/20/23

Project Name: 776 SUMMER ST.

Lab Number: L2303585

Project Number: 4867.02

Report Date: 02/02/23

**MADEP MCP Response Action Analytical Report Certification**

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

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

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





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

### 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.

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**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

### Case Narrative (continued)

#### MCP Related Narratives

##### Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

#### Non-MCP Related Narratives

##### Petroleum Hydrocarbon Identification by GC-FID

L2303585-01 and -02: The sample was extracted and then analyzed using a gas chromatograph equipped with a flame ionization detector (GC/FID). The temperature program and associated experimental conditions were optimized to obtain maximum resolution in an eighty minute chromatographic run representative of hydrocarbons in the n-Octane (C8) to n-Tetracontane (C40) range. Qualitative evaluation of the samples were conducted by reviewing the sample chromatogram in conjunction with a chromatogram of a normal alkane series generated with the same chromatographic conditions. Chromatograms of hydrocarbon reference materials obtained from our library of 82 reference standards were also utilized to provide the best possible sample match. Quantitative determination of the sample's hydrocarbon concentration was performed in accordance with EPA Method 8015M. The sample's total hydrocarbon concentration and all associated quality control data are included in the report.

The following qualitative information is based on a tentative interpretation of chromatographic pattern recognition and boiling point ranges:

##### Total Petroleum Hydrocarbon Identification

L2303585-01 and 02 contain hydrocarbons eluting in the range of n-Nonane (C9) to after the elution of n-Tetracontane (C40).

Based on the data generated, L2303585-01 and -02 contain material eluting in the low to mid molecular weight ranges of the chromatogram. The material appears to be similar to a weathered Fuel Oil #6/Diesel Fuel. In an analysis of an undegraded product the n-alkanes are typically the dominant constituents, as seen in the petroleum reference chromatogram. As the product deteriorates, the n-alkanes are preferentially degraded, leaving behind other constituents such as isoprenoids. The analytical testing of the sample identified a pattern

**Project Name:** 776 SUMMER ST.  
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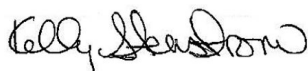
**Lab Number:** L2303585  
**Report Date:** 02/02/23

**Case Narrative (continued)**

of isoprenoids. The presence of isoprenoids and apparent absence of alkanes indicates that the fuel oil has undergone degradation.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 02/02/23

## QC OUTLIER SUMMARY REPORT

**Project Name:** 776 SUMMER ST.

**Lab Number:** L2303585

**Project Number:** 4867.02

**Report Date:** 02/02/23

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

# ORGANICS

# **PETROLEUM HYDROCARBONS**

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

**SAMPLE RESULTS**

Lab ID: L2303585-01  
 Client ID: SH-GP-305W  
 Sample Location: BOSTON, MA

Date Collected: 01/20/23 11:00  
 Date Received: 01/20/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Oil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/31/23 01:14  
 Analyst: WR  
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A  
 Extraction Date: 01/30/23 09:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
--	--	--	--	--	--	--

Total Petroleum Hydrocarbons (C9-C44)	396000		mg/kg	6360	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	100		50-130
d50-Tetracosane	110		50-130

**Project Name:** 776 SUMMER ST.  
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**Lab Number:** L2303585  
**Report Date:** 02/02/23

**SAMPLE RESULTS**

Lab ID: L2303585-02  
 Client ID: SH-GP-301  
 Sample Location: BOSTON, MA

Date Collected: 01/20/23 12:00  
 Date Received: 01/20/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Oil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 01/31/23 02:40  
 Analyst: WR  
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A  
 Extraction Date: 01/30/23 09:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab</b>						
Total Petroleum Hydrocarbons (C9-C44)	488000		mg/kg	3660	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	101		50-130
d50-Tetracosane	112		50-130



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

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

Analytical Method: 1,8015D(M)  
Analytical Date: 01/30/23 18:03  
Analyst: WR

Extraction Method: EPA 3580A  
Extraction Date: 01/30/23 09:52

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab for sample(s): 01-02 Batch: WG1738702-1					
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/kg	6600	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	100		50-130
d50-Tetracosane	101		50-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 776 SUMMER ST.

Project Number: 4867.02

Lab Number: L2303585

Report Date: 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab Associated sample(s): 01-02 Batch: WG1738702-2 WG1738702-3								
Nonane (C9)	95		98		50-130	3		30
Decane (C10)	95		97		50-130	2		30
Dodecane (C12)	100		102		50-130	2		30
Tetradecane (C14)	96		98		50-130	2		30
Hexadecane (C16)	108		108		50-130	0		30
Octadecane (C18)	106		107		50-130	1		30
Nonadecane (C19)	100		101		50-130	1		30
Eicosane (C20)	100		101		50-130	1		30
Docosane (C22)	102		103		50-130	1		30
Tetracosane (C24)	109		109		50-130	0		30
Hexacosane (C26)	104		104		50-130	0		30
Octacosane (C28)	104		104		50-130	0		30
Triacontane (C30)	104		104		50-130	0		30
Hexatriacontane (C36)	90		75		50-130	18		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	101		101		50-130
d50-Tetracosane	103		103		50-130

Project Name: 776 SUMMER ST.

Project Number: 4867.02

**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

A                                      Absent

**Container Information****Container ID**    **Container Type**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2303585-01A	Amber 1000ml unpreserved	A	NA		2.6	Y	Absent		A2-PHI(365)
L2303585-02A	Amber 1000ml unpreserved	A	NA		2.6	Y	Absent		A2-PHI(365)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

## 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:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

### 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.

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

#### **Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303585  
**Report Date:** 02/02/23

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** 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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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**

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



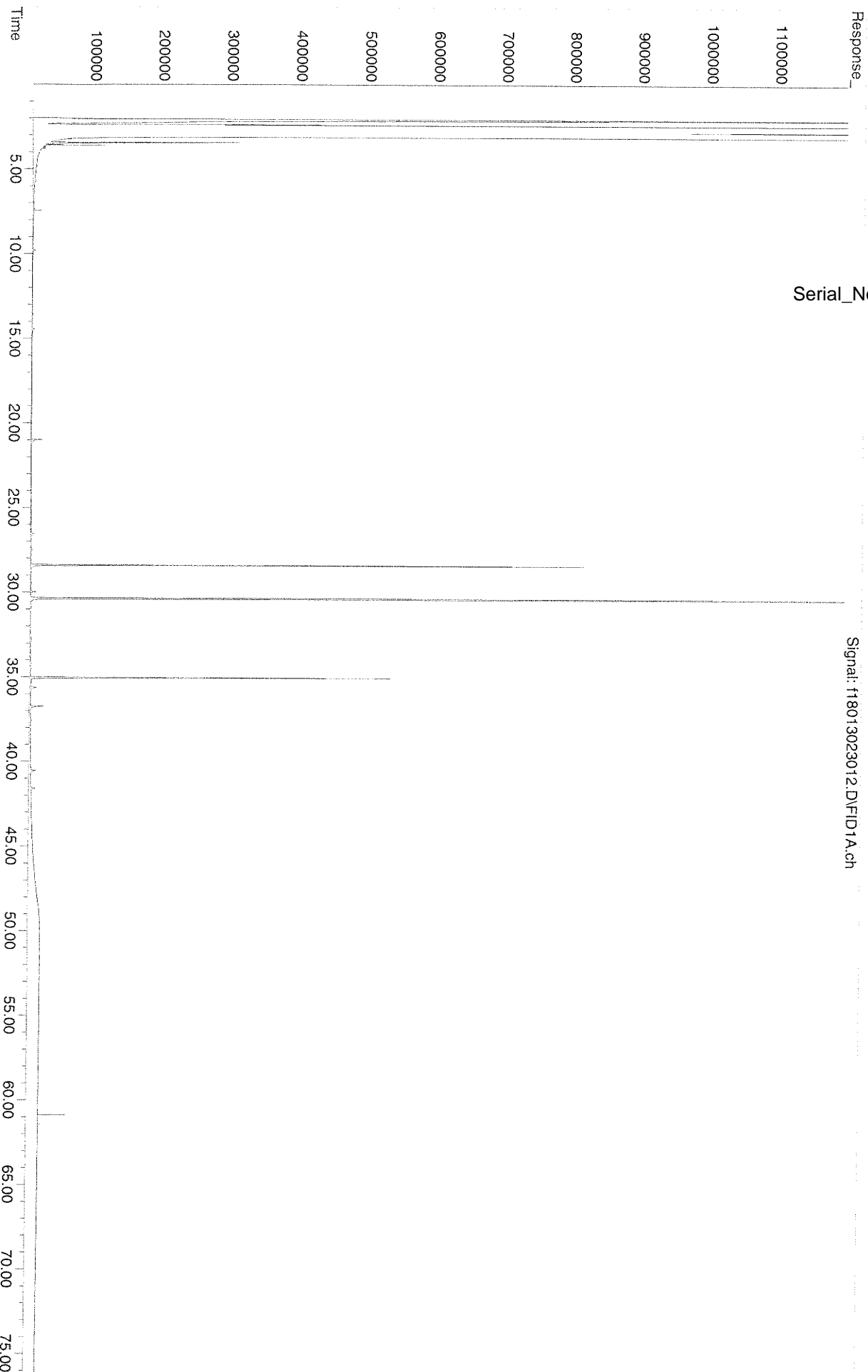


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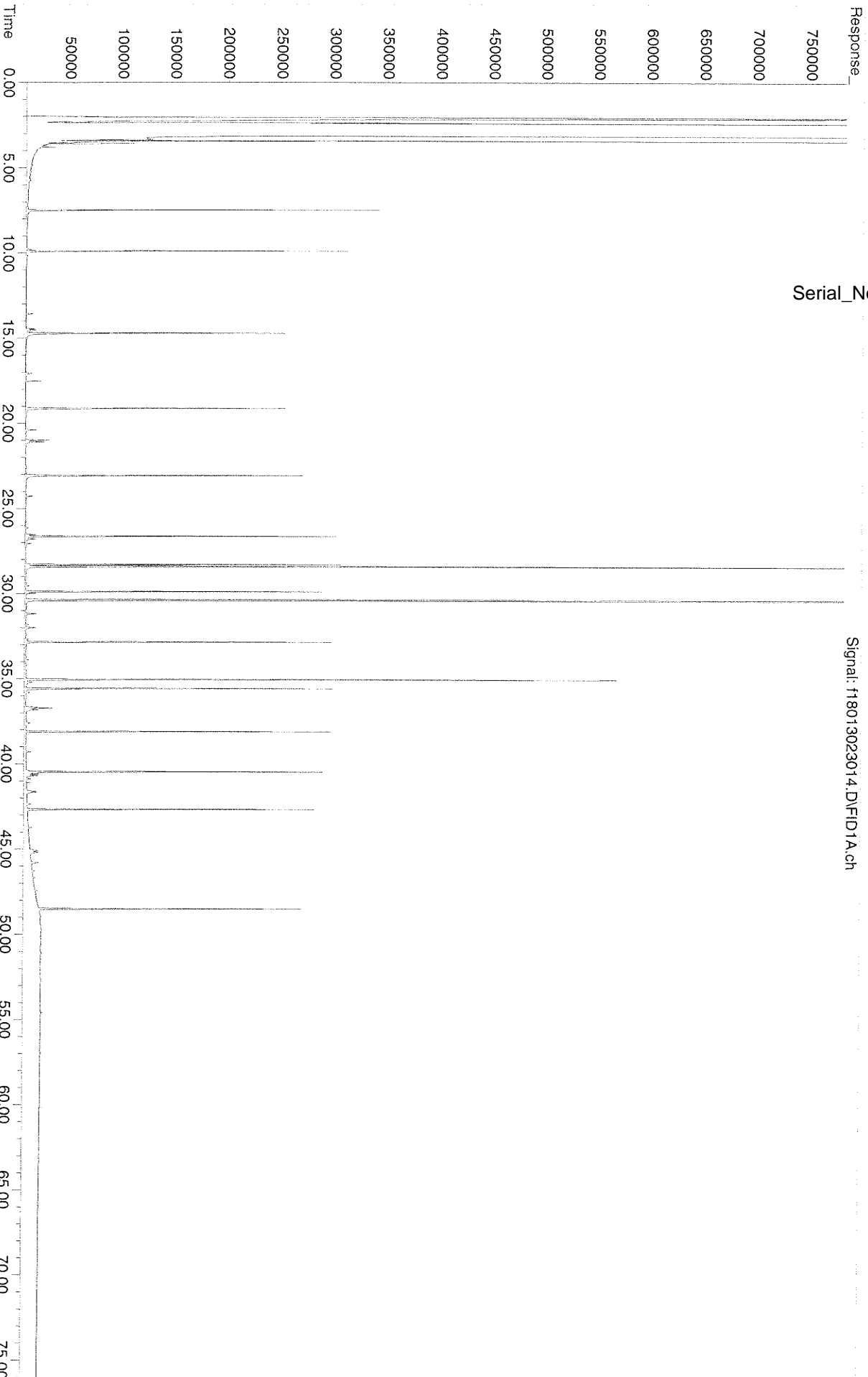
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Operator : FID18:WR  
Acquired : 30 Jan 2023 06:03 pm using AcqMethod FID18.M  
Instrument : FID 18  
Sample Name : WG1738702-1#2,,  
Misc Info : method blan  
Vial Number : 6

Serial\_No:02022319:30



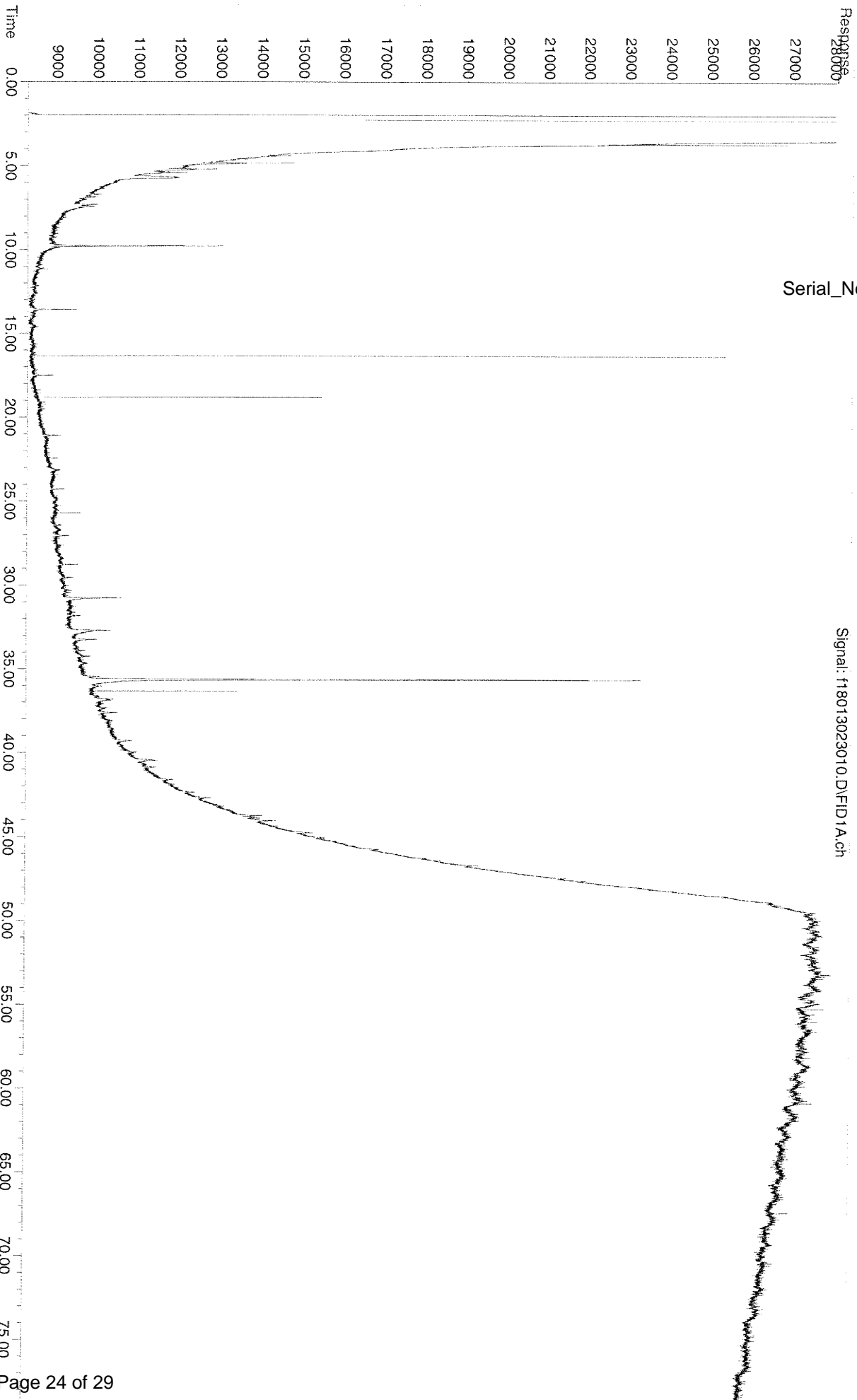
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Instrument : FID 18  
Sample Name : WG1738702-272',  
Misc Info : Laboratory Control sample  
Vial Number : 7

Serial\_No:0202319:30



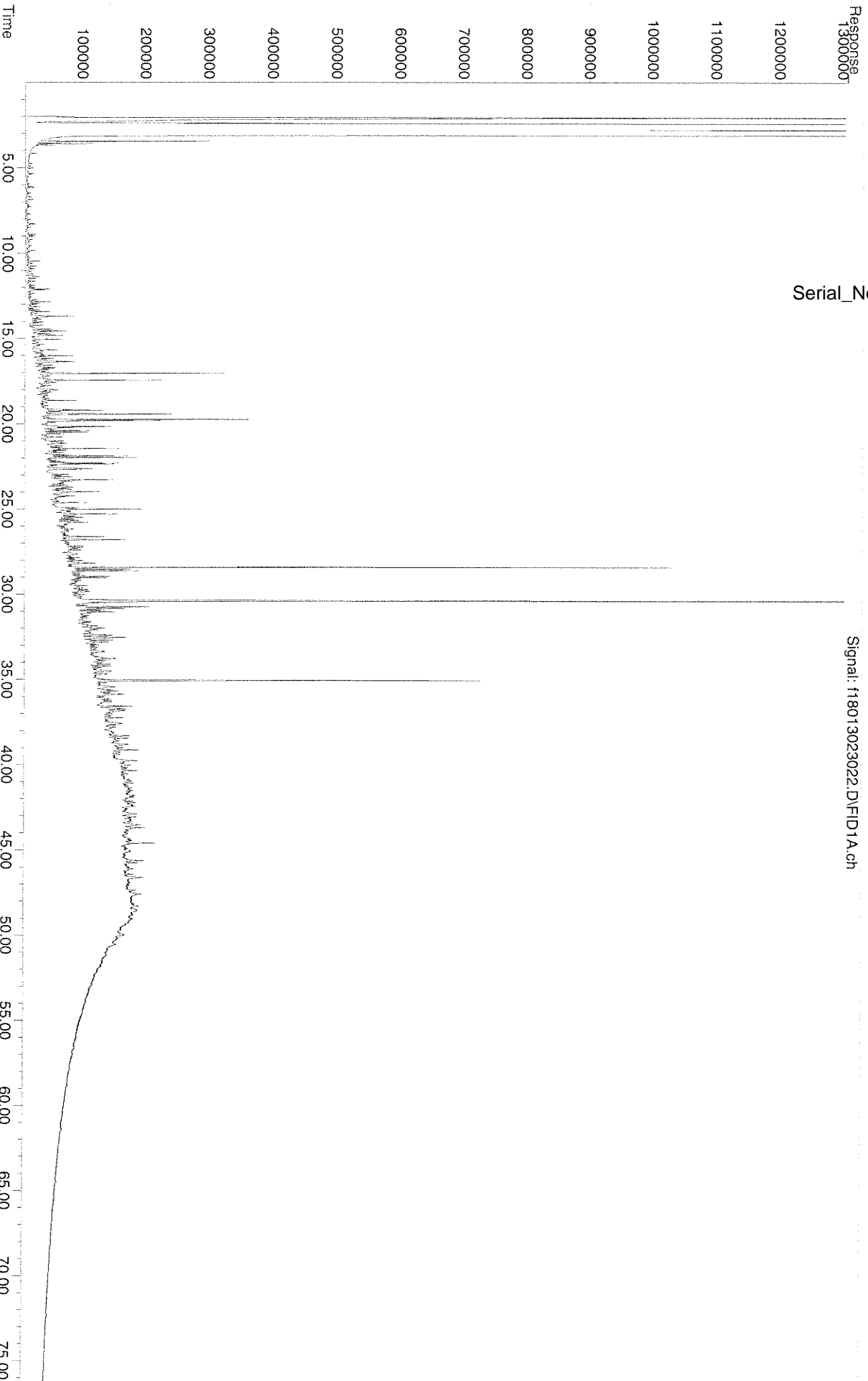
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Instrument : FID 18  
Sample Name : IB18013023010  
Misc Info :  
Vial Number : 5

Serial\_No:02022319-30



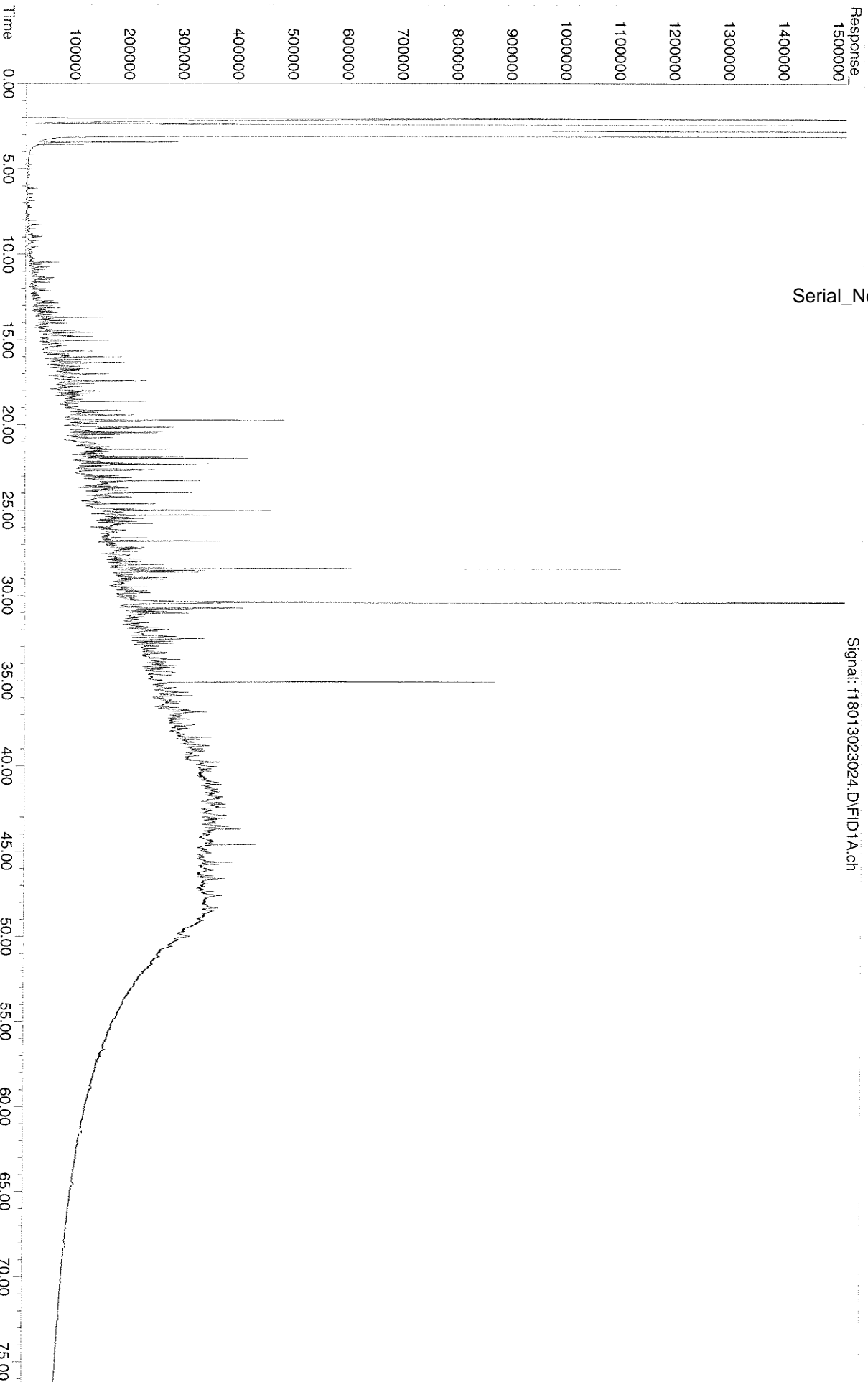
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Instrument : FID 18  
Sample Name: L2303585-01\_2,,.PRI  
Misc Info : WG1738826, W01738702, ICALL19428  
Vial Number: 11

Serial\_No:0202319:30



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Operator : FID18:WR  
Acquired : 31 Jan 2023 02:40 am using AcqMethod FID18.M  
Instrument : FID 18  
Sample Name : L2303585-02  
Misc Info : WGI738826, WGI738702, ICAL19428  
Vial Number : 12

Serial\_No:0202319:30



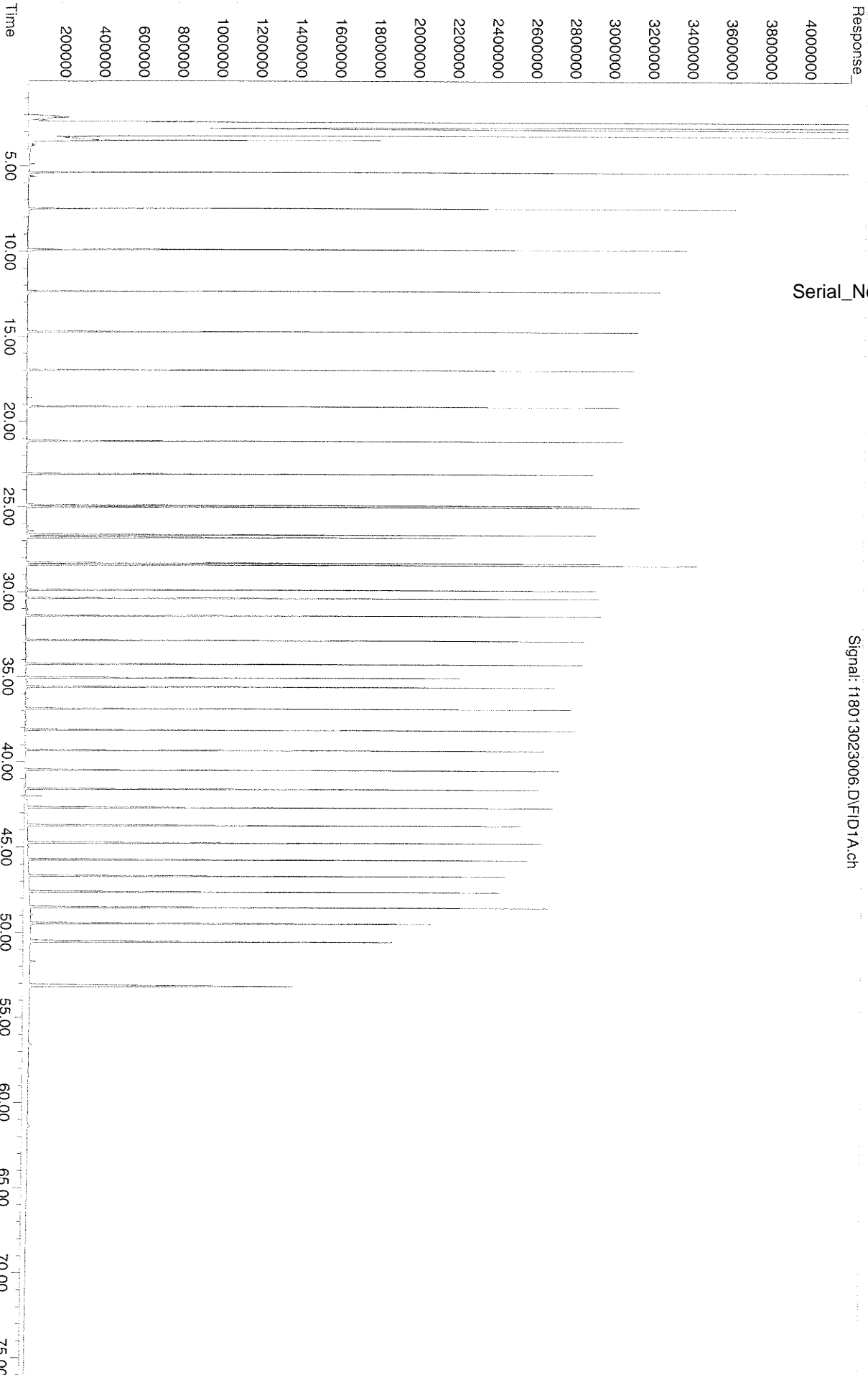
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# **Petroleum Reference Standards**



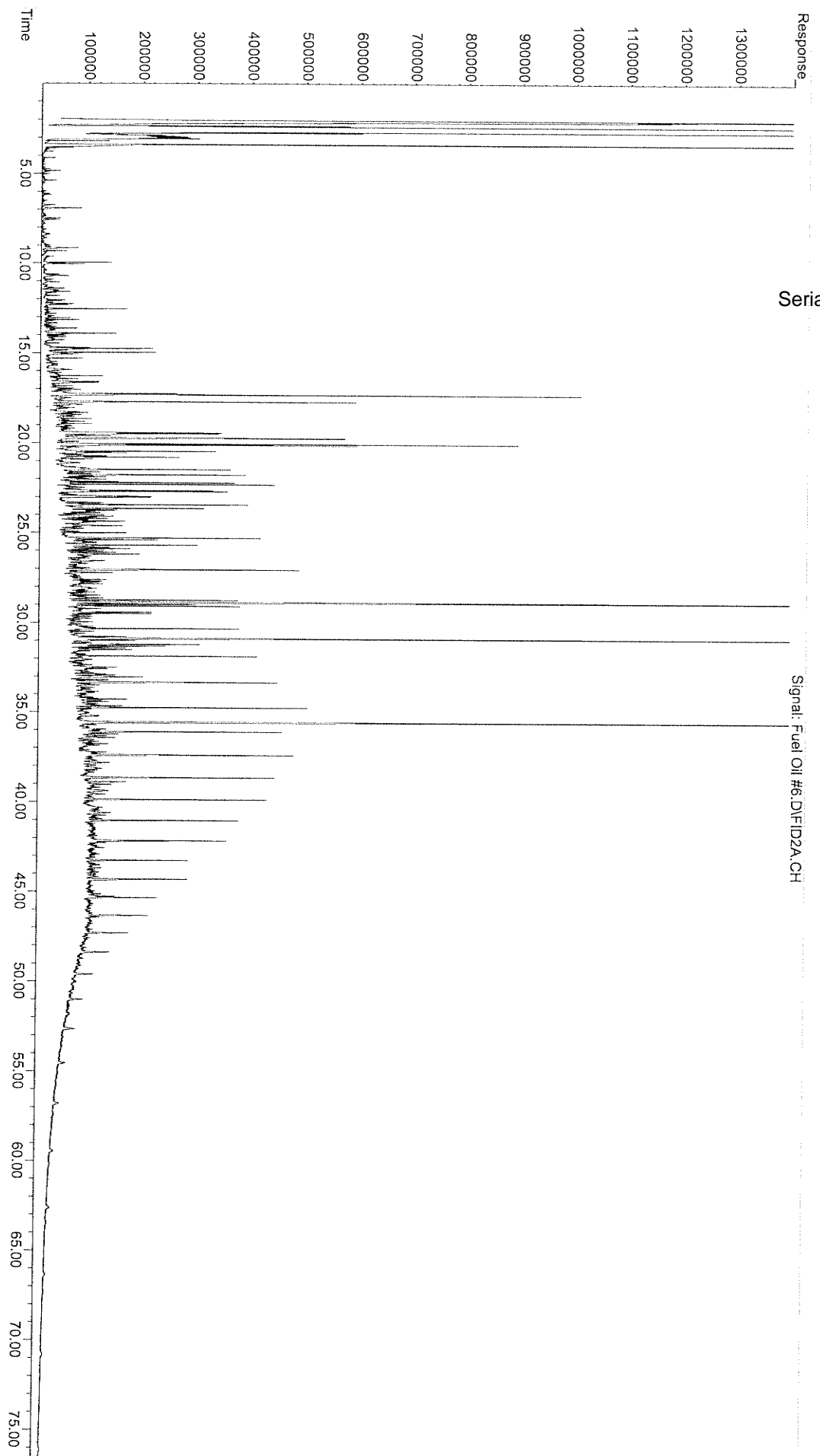
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Operator : FID18:WR  
Acquired : 30 Jan 2023 01:44 pm using AcqMethod FID18.M  
Instrument : FID 18  
Sample Name : WG1738826-1  
Misc Info : alkane reference standard C9-C40  
Vial Number: 3

Serial\_No:0202319:30



File : O:\Forensics\LIBRARY\Hydrocarbon Reference Standards\Fuel Oil #6.D  
Operator : PAH2:AC  
Instrument : PAH 2  
Acquired : 22 Nov 2011 11:50 am using AcqMethod FRNC2AF.M  
Sample : FUEL OIL #6  
Misc Info : IX F042710F

Serial\_No:0202231930





## ANALYTICAL REPORT

Lab Number:	L2303598
Client:	Sanborn, Head & Associates, Inc. 98 N. Washington Street Suite 101 Boston, MA 02114
ATTN:	Adam Coen
Phone:	(857) 327-9736
Project Name:	776 SUMMER ST.
Project Number:	4867.02
Report Date:	02/02/23

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2303598-01	SH-GP-313W	WATER	BOSTON, MA	01/20/23 09:55	01/20/23

Project Name: 776 SUMMER ST.

Lab Number: L2303598

Project Number: 4867.02

Report Date: 02/02/23

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

### 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.

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**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

In reference to question H:

L2303598-01: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0011), 1,1,2-trichloroethane (0.1681)

Average Response Factor: 1,4-dioxane, 1,1,2-trichloroethane

Verification: carbon disulfide (146%)

L2303598-01: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

##### VPH

In reference to question H:

The WG1737539-2 LCS recovery, associated with L2303598-01, is outside the acceptance criteria for pentane (67%); however, the target carbon ranges and analytes are within overall method allowances. The results of the original analysis are reported.

##### EPH

In reference to question G:

L2303598-01: One or more of the target analytes did not achieve the requested CAM reporting limits.

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

Authorized Signature:



Kelly O'Neill

Title: Technical Director/Representative

Date: 02/02/23

## QC OUTLIER SUMMARY REPORT

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC	WG1737939-3	Chloromethane	LCS	160	70-130	01	potential high bias
8260D	Batch QC	WG1737939-3	Dichlorodifluoromethane	LCS	140	70-130	01	potential high bias
8260D	Batch QC	WG1737939-3	Carbon disulfide	LCS	190	70-130	01	potential high bias
8260D	Batch QC	WG1737939-4	Chloromethane	LCSD	160	70-130	01	potential high bias
8260D	Batch QC	WG1737939-4	Carbon disulfide	LCSD	190	70-130	01	potential high bias
Volatile Petroleum Hydrocarbons - Westborough Lab								
VPH-18-2.1	Batch QC	WG1737539-2	Pentane	LCS	67	70-130	01	potential low bias



# ORGANICS

# VOLATILES

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

**SAMPLE RESULTS**

**Lab ID:** L2303598-01  
**Client ID:** SH-GP-313W  
**Sample Location:** BOSTON, MA

**Date Collected:** 01/20/23 09:55  
**Date Received:** 01/20/23  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 141,8260D  
**Analytical Date:** 01/27/23 06:28  
**Analyst:** MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	11		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 776 SUMMER ST.

Lab Number: L2303598

Project Number: 4867.02

Report Date: 02/02/23

## SAMPLE RESULTS

Lab ID: L2303598-01  
 Client ID: SH-GP-313W  
 Sample Location: BOSTON, MA

Date Collected: 01/20/23 09:55  
 Date Received: 01/20/23  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Trichloroethene	15		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	7.4		ug/l	1.0	--	1
1,2-Dichloroethene, Total	7.4		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

**SAMPLE RESULTS**

**Lab ID:** L2303598-01  
**Client ID:** SH-GP-313W  
**Sample Location:** BOSTON, MA

**Date Collected:** 01/20/23 09:55  
**Date Received:** 01/20/23  
**Field Prep:** Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	108		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

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

Analytical Method: 141,8260D  
Analytical Date: 01/27/23 05:20  
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1737939-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

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

Analytical Method: 141,8260D  
Analytical Date: 01/27/23 05:20  
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1737939-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 141,8260D  
Analytical Date: 01/27/23 05:20  
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1737939-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	111		70-130



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1737939-3 WG1737939-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	130		120		70-130	8		20
Chloroform	120		120		70-130	0		20
Carbon tetrachloride	120		120		70-130	0		20
1,2-Dichloropropane	120		120		70-130	0		20
Dibromochloromethane	100		100		70-130	0		20
1,1,2-Trichloroethane	99		100		70-130	1		20
Tetrachloroethene	120		120		70-130	0		20
Chlorobenzene	110		110		70-130	0		20
Trichlorofluoromethane	120		120		70-130	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	120		120		70-130	0		20
Bromodichloromethane	110		110		70-130	0		20
trans-1,3-Dichloropropene	97		100		70-130	3		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	88		94		70-130	7		20
1,1,1,2-Tetrachloroethane	94		95		70-130	1		20
Benzene	120		120		70-130	0		20
Toluene	110		120		70-130	9		20
Ethylbenzene	110		120		70-130	9		20
Chloromethane	<b>160</b>	Q	<b>160</b>	Q	70-130	0		20
Bromomethane	110		110		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1737939-3 WG1737939-4								
Vinyl chloride	130		120		70-130	8		20
Chloroethane	130		130		70-130	0		20
1,1-Dichloroethene	120		120		70-130	0		20
trans-1,2-Dichloroethene	120		120		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	96		98		70-130	2		20
p/m-Xylene	115		115		70-130	0		20
o-Xylene	120		120		70-130	0		20
cis-1,2-Dichloroethene	120		120		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	91		92		70-130	1		20
Styrene	120		120		70-130	0		20
Dichlorodifluoromethane	<b>140</b>	Q	130		70-130	7		20
Acetone	130		120		70-130	8		20
Carbon disulfide	<b>190</b>	Q	<b>190</b>	Q	70-130	0		20
Methyl ethyl ketone	110		120		70-130	9		20
Methyl isobutyl ketone	85		89		70-130	5		20
2-Hexanone	97		100		70-130	3		20
Bromochloromethane	120		120		70-130	0		20
Tetrahydrofuran	110		120		70-130	9		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1737939-3 WG1737939-4								
2,2-Dichloropropane	120		120		70-130	0		20
1,2-Dibromoethane	96		96		70-130	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		110		70-130	10		20
Bromobenzene	110		110		70-130	0		20
n-Butylbenzene	100		100		70-130	0		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	75		81		70-130	8		20
Hexachlorobutadiene	94		93		70-130	1		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	84		84		70-130	0		20
n-Propylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	92		91		70-130	1		20
1,2,4-Trichlorobenzene	92		92		70-130	0		20
1,3,5-Trimethylbenzene	100		100		70-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Diethyl ether	98		100		70-130	2		20
Diisopropyl Ether	130		130		70-130	0		20
Ethyl-Tert-Butyl-Ether	110		110		70-130	0		20

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1737939-3 WG1737939-4								
Tertiary-Amyl Methyl Ether	93		93		70-130	0		20
1,4-Dioxane	118		126		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		94		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	92		91		70-130
Dibromofluoromethane	106		103		70-130

# PETROLEUM HYDROCARBONS

Project Name: 776 SUMMER ST.

Lab Number: L2303598

Project Number: 4867.02

Report Date: 02/02/23

## SAMPLE RESULTS

Lab ID: L2303598-01

Date Collected: 01/20/23 09:55

Client ID: SH-GP-313W

Date Received: 01/20/23

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 131, VPH-18-2.1

Analytical Date: 01/26/23 01:01

Analyst: BAD

Trap: EST, Carboxen B/Carboxen 1000&amp;1001

Analytical Column: Restek, RTX-502.2,  
105m, 0.53ID, 3um

## Quality Control Information

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved

Sample Temperature upon receipt:

Container  
Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	100	--	1
C9-C12 Aliphatics	ND		ug/l	100	--	1
C9-C10 Aromatics	ND		ug/l	100	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	93		70-130
2,5-Dibromotoluene-FID	93		70-130

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

### SAMPLE RESULTS

Lab ID: L2303598-01  
 Client ID: SH-GP-313W  
 Sample Location: BOSTON, MA  
  
 Sample Depth:  
 Matrix: Water  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 01/24/23 21:38  
 Analyst: SC

Date Collected: 01/20/23 09:55  
 Date Received: 01/20/23  
 Field Prep: Not Specified

Extraction Method: EPA 3510C  
 Extraction Date: 01/23/23 08:57  
 Cleanup Method1: EPH-19-2.1  
 Cleanup Date1: 01/24/23

### Quality Control Information

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1
Naphthalene	ND		ug/l	10.0	--	1
2-Methylnaphthalene	ND		ug/l	10.0	--	1
Acenaphthylene	ND		ug/l	10.0	--	1
Acenaphthene	ND		ug/l	10.0	--	1
Fluorene	ND		ug/l	10.0	--	1
Phenanthrene	ND		ug/l	10.0	--	1
Anthracene	ND		ug/l	10.0	--	1
Fluoranthene	ND		ug/l	10.0	--	1
Pyrene	ND		ug/l	10.0	--	1
Benzo(a)anthracene	ND		ug/l	10.0	--	1
Chrysene	ND		ug/l	10.0	--	1
Benzo(b)fluoranthene	ND		ug/l	10.0	--	1
Benzo(k)fluoranthene	ND		ug/l	10.0	--	1
Benzo(a)pyrene	ND		ug/l	10.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--	1
Benzo(ghi)perylene	ND		ug/l	10.0	--	1

**Project Name:** 776 SUMMER ST.**Lab Number:** L2303598**Project Number:** 4867.02**Report Date:** 02/02/23**SAMPLE RESULTS**

Lab ID: L2303598-01

Date Collected: 01/20/23 09:55

Client ID: SH-GP-313W

Date Received: 01/20/23

Sample Location: BOSTON, MA

Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	62		40-140
o-Terphenyl	60		40-140
2-Fluorobiphenyl	72		40-140
2-Bromonaphthalene	73		40-140



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 01/24/23 11:39  
Analyst: AL

Extraction Method: EPA 3510C  
Extraction Date: 01/22/23 13:33  
Cleanup Method: EPH-19-2.1  
Cleanup Date: 01/23/23

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1736012-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--
Naphthalene	ND		ug/l	10.0	--
2-Methylnaphthalene	ND		ug/l	10.0	--
Acenaphthylene	ND		ug/l	10.0	--
Acenaphthene	ND		ug/l	10.0	--
Fluorene	ND		ug/l	10.0	--
Phenanthrene	ND		ug/l	10.0	--
Anthracene	ND		ug/l	10.0	--
Fluoranthene	ND		ug/l	10.0	--
Pyrene	ND		ug/l	10.0	--
Benzo(a)anthracene	ND		ug/l	10.0	--
Chrysene	ND		ug/l	10.0	--
Benzo(b)fluoranthene	ND		ug/l	10.0	--
Benzo(k)fluoranthene	ND		ug/l	10.0	--
Benzo(a)pyrene	ND		ug/l	10.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--
Benzo(ghi)perylene	ND		ug/l	10.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	65		40-140
o-Terphenyl	51		40-140
2-Fluorobiphenyl	59		40-140
2-Bromonaphthalene	58		40-140



**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 131, VPH-18-2.1  
 Analytical Date: 01/25/23 16:31  
 Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1737539-4					
C5-C8 Aliphatics	ND		ug/l	100	--
C9-C12 Aliphatics	ND		ug/l	100	--
C9-C10 Aromatics	ND		ug/l	100	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	100	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	100	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	101		70-130
2,5-Dibromotoluene-FID	99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1736012-2 WG1736012-3								
C9-C18 Aliphatics	76		73		40-140	4		25
C19-C36 Aliphatics	84		76		40-140	10		25
C11-C22 Aromatics	58		66		40-140	13		25
Naphthalene	54		64		40-140	17		25
2-Methylnaphthalene	56		65		40-140	15		25
Acenaphthylene	55		64		40-140	15		25
Acenaphthene	57		65		40-140	13		25
Fluorene	56		65		40-140	15		25
Phenanthrene	55		63		40-140	14		25
Anthracene	57		65		40-140	13		25
Fluoranthene	56		64		40-140	13		25
Pyrene	56		63		40-140	12		25
Benzo(a)anthracene	58		65		40-140	11		25
Chrysene	57		64		40-140	12		25
Benzo(b)fluoranthene	54		62		40-140	14		25
Benzo(k)fluoranthene	56		64		40-140	13		25
Benzo(a)pyrene	60		68		40-140	13		25
Indeno(1,2,3-cd)Pyrene	56		64		40-140	13		25
Dibenzo(a,h)anthracene	53		61		40-140	14		25
Benzo(ghi)perylene	50		58		40-140	15		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1736012-2 WG1736012-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	70		62		40-140
o-Terphenyl	50		56		40-140
2-Fluorobiphenyl	57		64		40-140
2-Bromonaphthalene	56		63		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1737539-2 WG1737539-3								
C5-C8 Aliphatics	89		92		70-130	4		25
C9-C12 Aliphatics	104		109		70-130	5		25
C9-C10 Aromatics	106		112		70-130	6		25
Benzene	111		117		70-130	5		25
Toluene	111		117		70-130	5		25
Ethylbenzene	115		120		70-130	4		25
p/m-Xylene	114		118		70-130	3		25
o-Xylene	112		118		70-130	5		25
Methyl tert butyl ether	101		109		70-130	8		25
Naphthalene	101		107		70-130	6		25
1,2,4-Trimethylbenzene	106		112		70-130	6		25
Pentane	67	Q	70		70-130	4		25
2-Methylpentane	92		96		70-130	4		25
2,2,4-Trimethylpentane	103		107		70-130	4		25
n-Nonane	103		108		30-130	5		25
n-Decane	103		109		70-130	6		25
n-Butylcyclohexane	105		110		70-130	5		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,5-Dibromotoluene-PID	100		103		70-130
2,5-Dibromotoluene-FID	95		100		70-130

**Project Name:** 776 SUMMER ST.**Lab Number:** L2303598**Project Number:** 4867.02**Report Date:** 02/02/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2303598-01A	Vial HCl preserved	A	NA		2.6	Y	Absent		MCP-8260-21(14)
L2303598-01B	Vial HCl preserved	A	NA		2.6	Y	Absent		MCP-8260-21(14)
L2303598-01C	Vial HCl preserved	A	NA		2.6	Y	Absent		MCP-8260-21(14)
L2303598-01D	Vial HCl preserved	A	NA		2.6	Y	Absent		VPH-DELUX-18(14)
L2303598-01E	Vial HCl preserved	A	NA		2.6	Y	Absent		VPH-DELUX-18(14)
L2303598-01F	Vial HCl preserved	A	NA		2.6	Y	Absent		VPH-DELUX-18(14)
L2303598-01G	Amber 1000ml HCl preserved	A	<2	<2	2.6	Y	Absent		EPH-DELUX-20(14)
L2303598-01H	Amber 1000ml HCl preserved	A	<2	<2	2.6	Y	Absent		EPH-DELUX-20(14)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

## 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:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

### 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.

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

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

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

**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.

Report Format: Data Usability Report





**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

#### **Data Qualifiers**

- 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 the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 776 SUMMER ST.  
**Project Number:** 4867.02

**Lab Number:** L2303598  
**Report Date:** 02/02/23

## REFERENCES

- 131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.
- 135 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, December 2019, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, March 1, 2020.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LCHAT 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**

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



# Method Blank Summary

## Form 4

### Volatiles

Client : Sanborn, Head & Associates, Inc.      Lab Number : L2303598  
Project Name : 776 SUMMER ST.      Project Number : 4867.02  
Lab Sample ID : WG1737939-5      Lab File ID : VQ230127A05  
Instrument ID : QUIMBY  
Matrix : WATER      Analysis Date : 01/27/23 05:20

Client Sample No.	Lab Sample ID	Analysis Date
WG1737939-3LCS	WG1737939-3	01/27/23 04:23
WG1737939-4LCSD	WG1737939-4	01/27/23 04:58
SH-GP-313W	L2303598-01	01/27/23 06:28

# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : QUIMBY  
 Lab File ID : VQ230127A03  
 Sample No : WG1737939-2  
 Channel :

Lab Number : L2303598  
 Project Number : 4867.02  
 Calibration Date : 01/27/23 04:23  
 Init. Calib. Date(s) : 11/30/22 12/01/22  
 Init. Calib. Times : 20:34 00:45

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	60	0
Dichlorodifluoromethane	0.2	0.271	-	-35.5*	20	93	0
Chloromethane	0.261	0.422	-	-61.7*	20	113	-.01
Vinyl chloride	0.235	0.297	-	-26.4*	20	87	0
Bromomethane	0.118	0.132	-	-11.9	20	78	0
Chloroethane	0.139	0.177	-	-27.3*	20	89	0
Trichlorofluoromethane	0.3	0.369	-	-23*	20	84	0
Ethyl ether	0.093	0.091	-	2.2	20	75	0
1,1-Dichloroethene	0.169	0.199	-	-17.8	20	82	0
Carbon disulfide	0.314	0.601	-	-91.4*	20	134	0
Methylene chloride	0.189	0.213	-	-12.7	20	81	0
Acetone	10	13.304	-	-33*	20	99	-.01
trans-1,2-Dichloroethene	0.179	0.208	-	-16.2	20	82	0
Methyl tert-butyl ether	0.445	0.427	-	4	20	69	0
Diisopropyl ether	0.816	1.054	-	-29.2*	20	94	0
1,1-Dichloroethane	0.433	0.553	-	-27.7*	20	89	0
Ethyl tert-butyl ether	0.706	0.76	-	-7.6	20	80	0
cis-1,2-Dichloroethene	0.236	0.284	-	-20.3*	20	85	0
2,2-Dichloropropane	0.366	0.447	-	-22.1*	20	88	0
Bromochloromethane	0.108	0.128	-	-18.5	20	85	0
Chloroform	0.389	0.468	-	-20.3*	20	85	0
Carbon tetrachloride	0.314	0.382	-	-21.7*	20	84	0
Tetrahydrofuran	0.06	0.067	-	-11.7	20	85	0
Dibromofluoromethane	0.256	0.271	-	-5.9	20	63	0
1,1,1-Trichloroethane	0.345	0.415	-	-20.3*	20	84	0
2-Butanone	0.07	0.08	-	-14.3	20	85	0
1,1-Dichloropropene	0.305	0.344	-	-12.8	20	81	0
Benzene	0.856	1.018	-	-18.9	20	83	0
tert-Amyl methyl ether	0.574	0.533	-	7.1	20	70	0
1,2-Dichloroethane-d4	0.305	0.311	-	-2	20	60	0
1,2-Dichloroethane	0.302	0.331	-	-9.6	20	79	0
Trichloroethene	0.228	0.261	-	-14.5	20	78	0
Dibromomethane	0.12	0.123	-	-2.5	20	75	0
1,2-Dichloropropane	0.246	0.285	-	-15.9	20	84	0
Bromodichloromethane	0.309	0.336	-	-8.7	20	79	0
1,4-Dioxane	0.00107	0.00127*	-	-18.7	20	85	-.01
cis-1,3-Dichloropropene	0.366	0.385	-	-5.2	20	75	0
Chlorobenzene-d5	1	1	-	0	20	60	0
Toluene-d8	1.343	1.37	-	-2	20	61	0
Toluene	0.744	0.846	-	-13.7	20	81	0
4-Methyl-2-pentanone	0.079	0.067	-	15.2	20	67	0
Tetrachloroethene	0.308	0.369	-	-19.8	20	85	0
trans-1,3-Dichloropropene	0.435	0.423	-	2.8	20	70	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sanborn, Head & Associates, Inc.  
 Project Name : 776 SUMMER ST.  
 Instrument ID : QUIMBY  
 Lab File ID : VQ230127A03  
 Sample No : WG1737939-2  
 Channel :

Lab Number : L2303598  
 Project Number : 4867.02  
 Calibration Date : 01/27/23 04:23  
 Init. Calib. Date(s) : 11/30/22 12/01/22  
 Init. Calib. Times : 20:34 00:45

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,1,2-Trichloroethane	0.189	0.188*	-	0.5	20	75	0
Chlorodibromomethane	0.287	0.286	-	0.3	20	73	0
1,3-Dichloropropane	0.416	0.417	-	-0.2	20	73	0
1,2-Dibromoethane	0.223	0.214	-	4	20	70	0
2-Hexanone	0.147	0.143	-	2.7	20	73	0
Chlorobenzene	0.823	0.935	-	-13.6	20	81	0
Ethylbenzene	1.424	1.626	-	-14.2	20	80	0
1,1,1,2-Tetrachloroethane	0.305	0.317	-	-3.9	20	75	0
p/m Xylene	0.564	0.659	-	-16.8	20	81	0
o Xylene	0.527	0.634	-	-20.3*	20	82	0
Styrene	0.856	1.024	-	-19.6	20	82	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	62	0
Bromoform	0.312	0.277	-	11.2	20	67	0
Isopropylbenzene	2.709	2.965	-	-9.4	20	79	0
4-Bromofluorobenzene	0.966	0.887	-	8.2	20	57	0
Bromobenzene	0.654	0.708	-	-8.3	20	79	0
n-Propylbenzene	3.218	3.589	-	-11.5	20	79	0
1,1,2,2-Tetrachloroethane	0.461	0.433	-	6.1	20	73	0
2-Chlorotoluene	2.209	2.444	-	-10.6	20	81	0
1,3,5-Trimethylbenzene	2.386	2.525	-	-5.8	20	77	0
1,2,3-Trichloropropane	0.402	0.364	-	9.5	20	69	0
4-Chlorotoluene	2.036	2.205	-	-8.3	20	79	0
tert-Butylbenzene	2.088	2.291	-	-9.7	20	78	0
1,2,4-Trimethylbenzene	2.361	2.46	-	-4.2	20	76	0
sec-Butylbenzene	2.994	3.281	-	-9.6	20	77	0
p-Isopropyltoluene	2.711	2.89	-	-6.6	20	75	0
1,3-Dichlorobenzene	1.279	1.454	-	-13.7	20	83	0
1,4-Dichlorobenzene	1.287	1.427	-	-10.9	20	81	0
n-Butylbenzene	2.323	2.382	-	-2.5	20	73	0
1,2-Dichlorobenzene	1.2	1.304	-	-8.7	20	79	0
1,2-Dibromo-3-chloropropan	0.082	0.061	-	25.6*	20	57	0
Hexachlorobutadiene	0.449	0.421	-	6.2	20	70	0
1,2,4-Trichlorobenzene	0.925	0.85	-	8.1	20	70	0
Naphthalene	1.775	1.498	-	15.6	20	64	0
1,2,3-Trichlorobenzene	0.819	0.75	-	8.4	20	70	0

\* Value outside of QC limits.

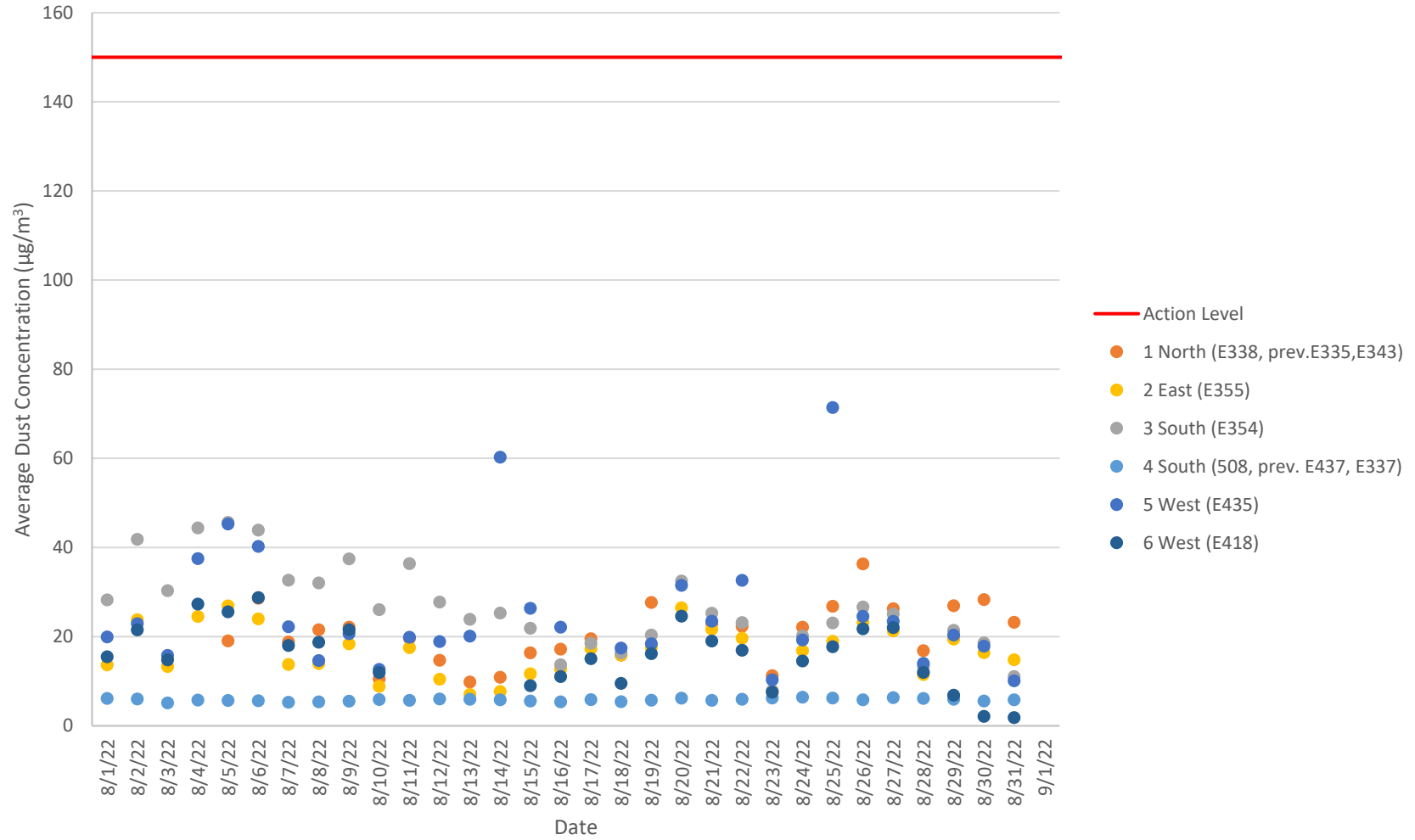


## **Appendix D**

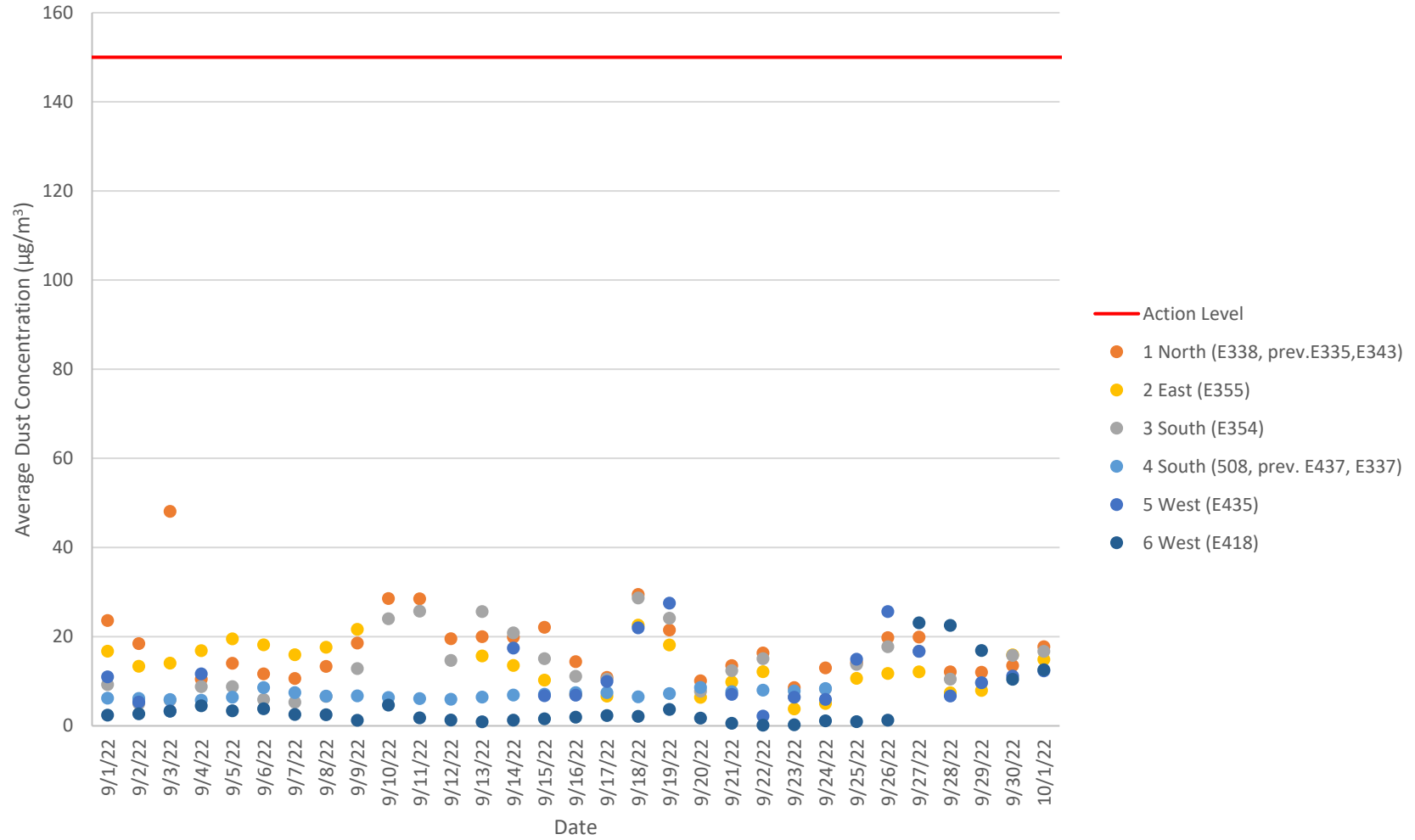
### **Dust Monitoring Data**



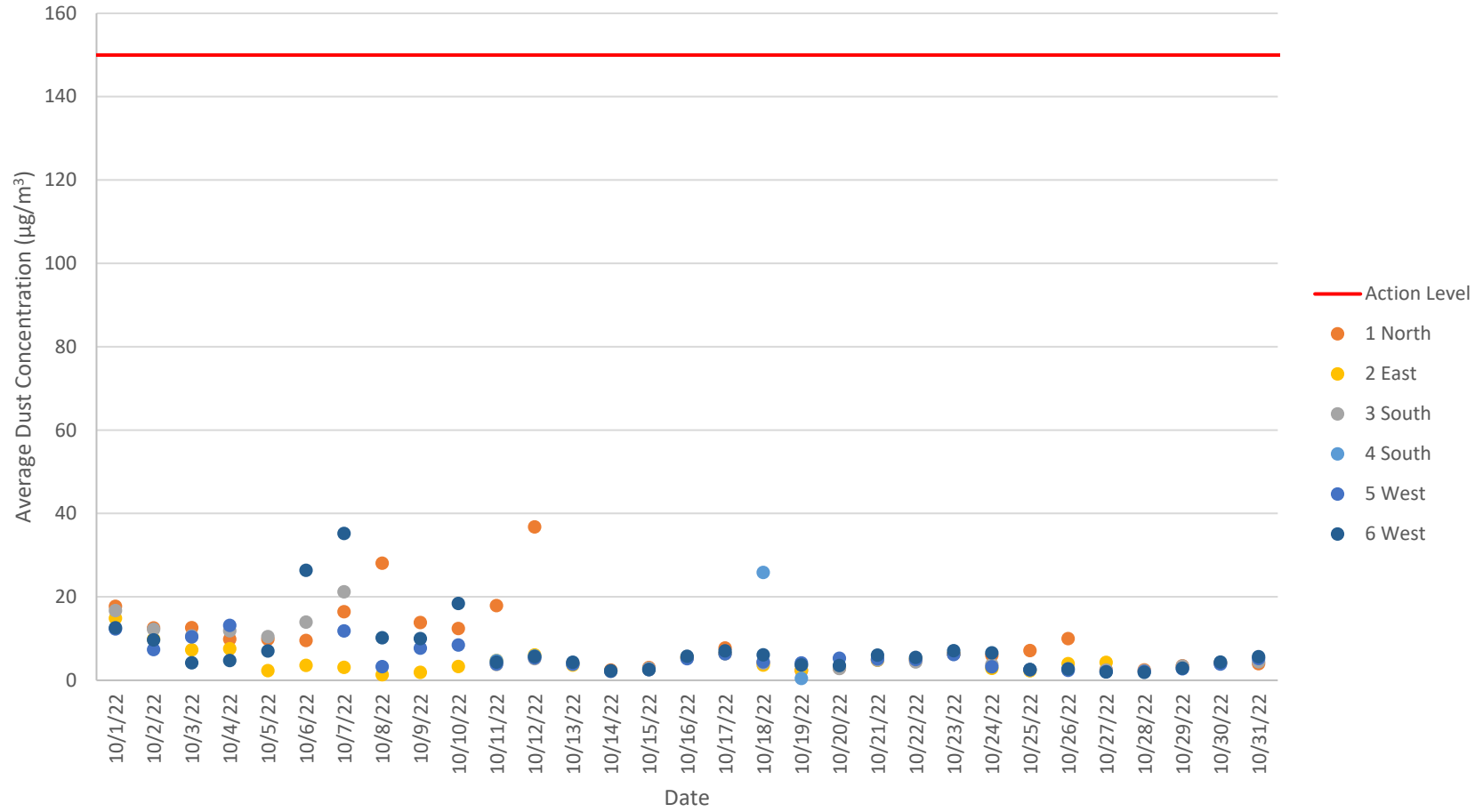
**Dust Concentration 24-hour Averages**  
**August 1 - August 31, 2022**  
 776 Summer Street  
 Boston, Massachusetts



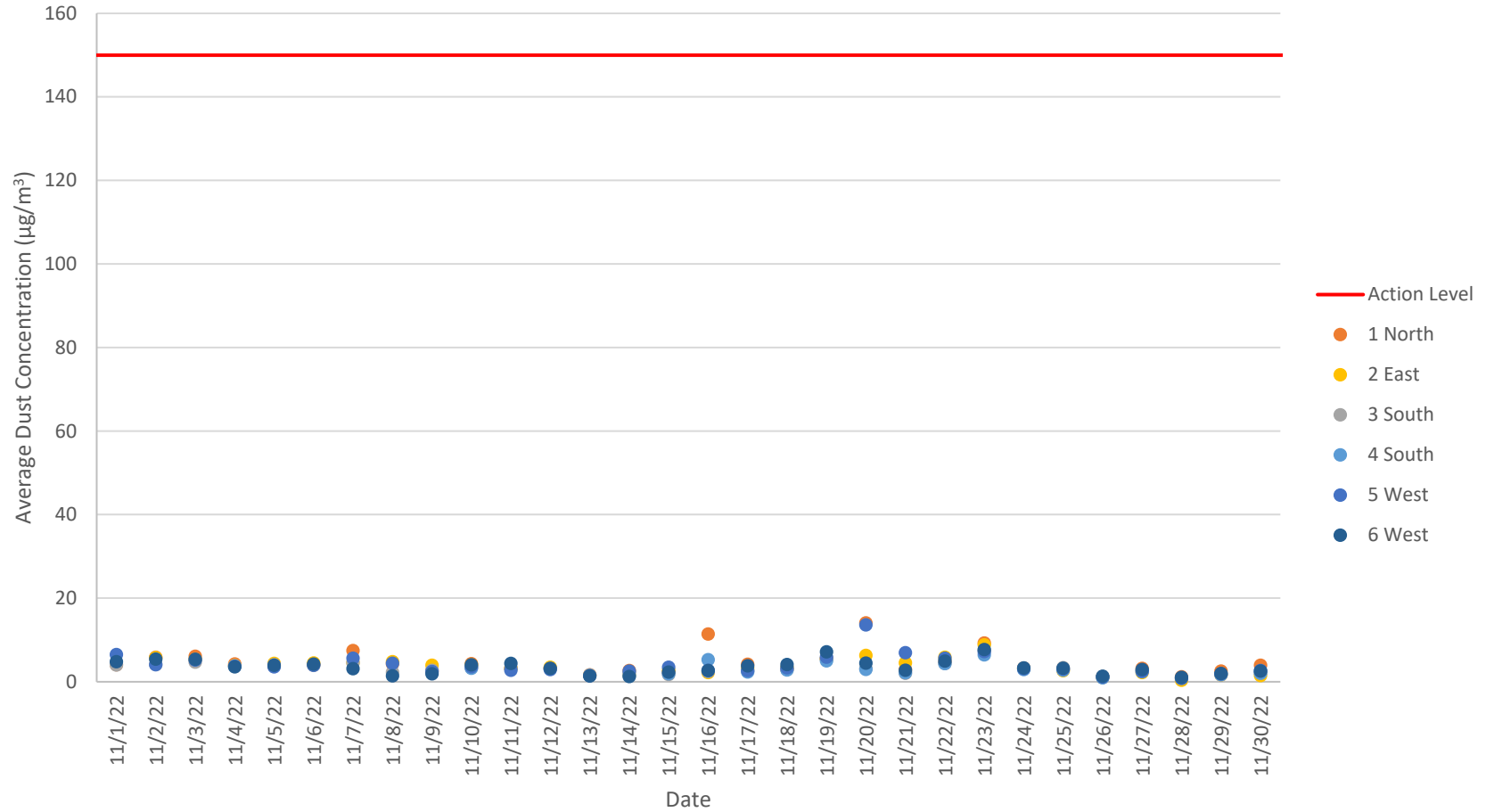
**Dust Concentration 24-hour Averages**  
**September 1 - September 30, 2022**  
 776 Summer Street  
 Boston, Massachusetts



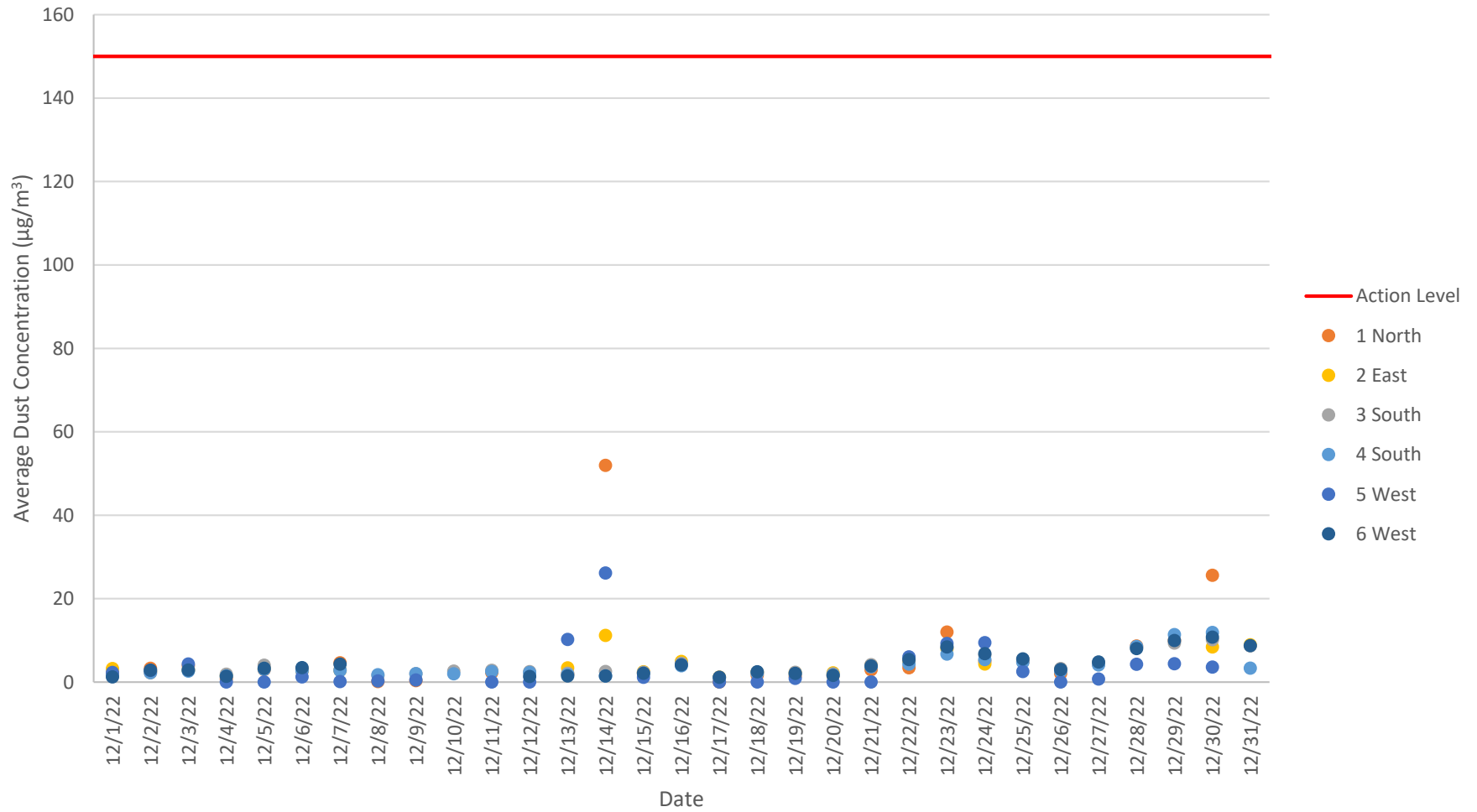
**Dust Concentration 24-hour Averages**  
**October 1 - October 31, 2022**  
 776 Summer Street  
 Boston, Massachusetts



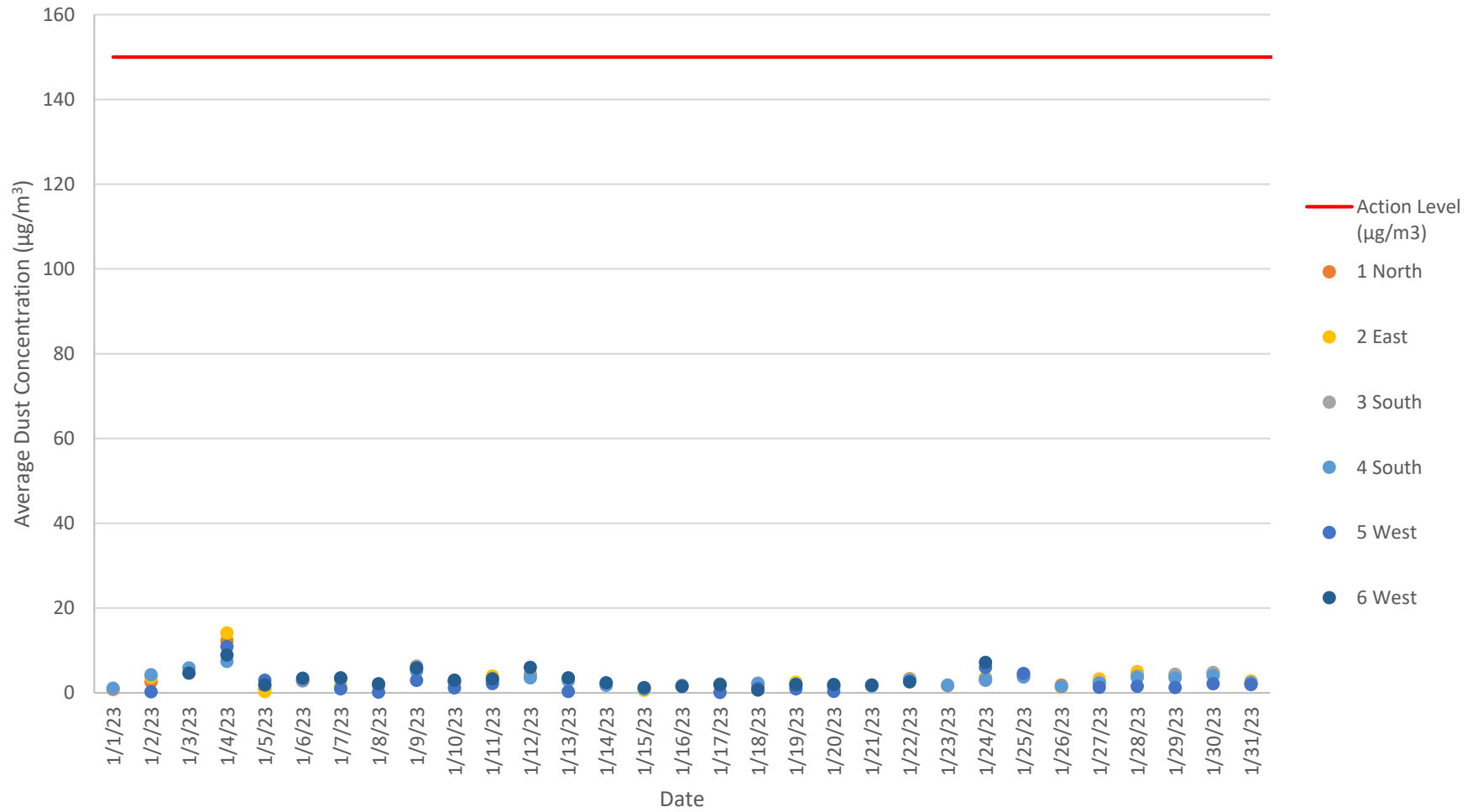
**Dust Concentration 24-hour Averages**  
**November 1 - November 30, 2022**  
 776 Summer Street  
 Boston, Massachusetts



**Dust Concentration 24-hour Averages**  
**December 1 - December 31, 2022**  
 776 Summer Street  
 Boston, Massachusetts



**Dust Concentration 24-hour Averages**  
**January 1 - January 31, 2023**  
 776 Summer Street  
 Boston, Massachusetts



## **Appendix E**

### **Limitations**

## APPENDIX A

### LIMITATIONS

1. The conclusions and recommendations described in this report are based in part on the data obtained from a specific number of soil samples from subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation or remediation is initiated. If variations or other latent conditions then appear evident, it may be necessary to re-evaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the exploration logs.
3. Water level observations have been made at times and under conditions stated within the text of the report. Note that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors not evident at the time measurements were made.
4. Quantitative laboratory analyses were performed as part of the investigation as noted within the report. The analyses were performed for specific parameters that were selected during the course of this study. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their distributions within the groundwater and soil may occur due to the passage of time, seasonal water table fluctuations, recharge events, and other factors.
5. The conclusions and recommendations contained in this report are based in part upon various types of laboratory data. While Sanborn Head has reviewed that data and information as stated in this report, any of Sanborn Head's interpretations, conclusions, and recommendations that have relied on that information will be contingent on its validity. Should additional laboratory data, historical information, or hydrogeologic information become available in the future, such information should be reviewed by Sanborn Head and the interpretations, conclusions and recommendations presented herein may be modified accordingly.
6. This report has been prepared for the exclusive use of HRP 776 Summer Street, LLC for specific application to the 776 Summer Street redevelopment activities described in the Release Abatement Measure (RAM) Status Report to which these limitations are appended in accordance with generally accepted environmental practices. No other warranty, express or implied, is made.
7. The analyses and recommendations contained in this report are based on the data obtained from the referenced subsurface explorations. The explorations indicate subsurface conditions only at the specific locations and times, and only to the depths penetrated. They do not necessarily reflect strata variations that may exist between such locations. The validity of the recommendations is based in part on assumptions Sanborn Head has made about conditions at the site. Such assumptions may be confirmed only during remediation. If subsurface conditions different from those described become evident, the recommendations in this report may be re-evaluated.