



## **DRAFT IMMEDIATE RESPONSE ACTION COMPLETION REPORT**

**Kings Cove Conservation Area  
90 Bridge Street  
Weymouth, Massachusetts 02191  
Release Tracking Number 4-28615**

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*Prepared for:*



**Algonquin Gas Transmission, LLC  
890 Winter Street, Suite 300  
Waltham, Massachusetts 02451**

*Prepared by:*



**TRC Environmental Corporation  
Wannalancit Mills  
650 Suffolk Street  
Lowell, Massachusetts 01854**

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## 1.0 INTRODUCTION

TRC Environmental Corporation (TRC) is submitting this Draft Immediate Response Action (IRA) Completion Report (Draft IRA Completion Report) to complete the response to a 2-hour reporting condition under the Massachusetts Contingency Plan (MCP).

The 2-hour reporting condition was identified during shallow sediment sampling performed on November 13, 2020 at the property located at 90 Bridge Street, Weymouth, MA, owned by Calpine Fore River Energy (Weymouth Assessors Block-Lot ID's 63-3) known as the Kings Cove Conservation Area ("Kings Cove").

As part of a wider sampling program, sediment samples were obtained at a depth of 0 to 0.5 feet along 3-sample lines oriented parallel to the shoreline to assess human and ecological exposure.

Two of the sediment samples collected were determined to contain arsenic or total chromium at concentrations exceeding the 2-hour notification threshold specified at 310 CMR 40.0321(2)(b). Following the December 8, 2020 notification to the Massachusetts Department of Environmental Protection (MassDEP), MassDEP assigned Release Tracking Number (RTN) 4-28615 to the reported concentrations of arsenic and total chromium in sediment and approved the IRA activities reported in this Draft IRA Completion Report. As part of the IRA, TRC conducted additional sediment sampling at Kings Cove in December 2020. Figure 1 shows the area that is addressed by the IRA including the sampling locations.

Party Conducting IRA: Algonquin Gas Transmission, LLC  
Attention: Mr. George McLachlan  
890 Winter Street, Suite 300  
Waltham, MA 02451  
(617) 560-1335

Owner of the IRA Site Property: Calpine Fore River Energy Center, LLC  
Attention: Mr. Charles Parnell  
9 Bridge Street  
North Weymouth, MA 02191  
(781) 682-2522

Licensed Site Professional:

James Doherty, PE, LSP  
LSP License Number 3984  
TRC Environmental Corporation  
650 Suffolk Street  
Lowell, Massachusetts 01854  
(978) 656- 3680

This Draft IRA Completion Report is being submitted following the completion of IRA activities in accordance with 310 CMR 40.0427.

## 2.0 RELEASE DESCRIPTION, SITE CONDITIONS AND SURROUNDING RECEPTORS [310 CMR 40.0427 (4)(a)]

The following sections describe the release, site conditions, and surrounding receptors in accordance with 310 CMR 40.0427(4)(a).

### 2.1 Release Description

On November 13, 2020, TRC performed shallow sediment sampling at 27 locations (SL1-01 through SL1-10, SL2-01 through SL2-10, and SL3-4 through SL3-10) as part of a wider sampling program at Kings Cove to characterize potential fill related impacts in the area. The samples were submitted to Alpha Analytical of Westborough, Massachusetts (Alpha) for laboratory analyses to evaluate potential Extractable Petroleum Hydrocarbons (EPH), polycyclic aromatic hydrocarbons (PAHs), and metals impacts. Laboratory analytical results for sediment sample SL1-08 at a depth of 0 to 0.5 feet indicated a total chromium concentration of 250 milligrams per kilogram (mg/kg), exceeding the 2-hour notification threshold. The laboratory analytical results for sediment sample SL2-10 at a depth of 0 to 0.5 feet indicated an arsenic concentration of 43 mg/kg, exceeding the 2-hour notification threshold<sup>1</sup>.

The applicable 2-hour notification threshold for arsenic is 40 mg/kg and for total chromium it is 200 mg/kg. These thresholds are concentrations in sediment that “poses or could pose an imminent hazard” as specified at 310 CMR 40.0321.

To evaluate whether an Imminent Hazard is actually presented by the circumstances that are the subject of a 2-hour notification, the MCP requires calculation of an Exposure Point Concentration based on all pertinent sampling results for the area that could potentially pose an Imminent Hazard. Thus, even though individual sediment concentrations may exceed the applicable 2-hour notification threshold, whether or not an Imminent Hazard condition actually exists depends on the evaluation of the relevant sampling results.

### 2.2 Site Conditions

The Kings Cove area addressed by the IRA activities is approximately 0.58 acres. The top 0.5 feet of sediment consists of sand and gravel impacted with some anthropogenic (man-made) materials like coal, coal ash, and clinkers; as well as demolition debris (brick and wire remnants) associated with historic filling.

The coordinates of the Kings Cove area are:

42.244360 N and -70.962189 W

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<sup>1</sup> The sample results are included in **Table 1**, and sample locations are identified on **Figure 1**. Copies of the laboratory analytical reports are included in **Appendix B**.

The Kings Cove area is located north of Bridge Street (Route 3A) in Weymouth, just to the east of the Fore River Bridge. According to data obtained from the Massachusetts Geographic Information System (MassGIS) website (<http://www.mass.gov/mgis/>), there are no relevant mapped priority resource features within 500 feet of the Site. A copy of the MassGIS Priority Resources Map for the vicinity of the Kings Cove area is provided as **Figure 2**.

### **2.3 Surrounding Receptors**

The properties in the vicinity of Kings Cove include residential properties along Bridge Street, the Calpine Fore River Energy Center, the Algonquin Compressor Station and the Massachusetts Water Resource Authority (MWRA) pumping station.

### **3.0 DESCRIPTION OF WORK COMPLETED [310 CMR 40.0427(4)(b)]**

#### **3.1 Supplemental Sediment Sampling**

On December 28, 2020, TRC collected additional sediment samples in the vicinity of sample location SL2-10 in order to determine the extent of arsenic impacts at SL2-10, and in the vicinity of location SL1-08 to obtain sediment samples for chromium analysis to allow the estimation of the percentage of the total chromium detected in hexavalent form (chromium speciation) in the vicinity of sample location SL1-08. TRC performed field screening for arsenic and chromium during the sediment sampling using a handheld X-Ray Fluorescence Analyzer (XRF), in order to guide the sampling effort and reduce the potential need for an additional sampling mobilization. The XRF screening results are included in **Appendix A**.

In order to determine the extent of arsenic impacts, sediment samples were collected from depths of 0 to 0.5 feet at nine locations at five, 10, and 15 feet from sample location SL2-10 (SL2-10-S5, SL2-10-S10, SL2-10-S15, SL2-10-W5, SL2-10-W10, SL2-10-W15, SL2-10-E5, SL2-10-E10, SL2-10-N5, SL2-10-N10, and SL2-10-N15). The samples were submitted to Alpha and authorized for laboratory analysis of arsenic as needed to determine the extent of arsenic impacts.

In order to estimate the percentage of the total chromium detected in hexavalent form, sediment samples were collected from 0 to 0.5 feet at five locations including at the original SL1-08 sample location and two feet from the sample location (SL1-08R, SL1-08-S2, SL1-08-W2, SL1-08-E2, and SL1-08-N2). Three of the samples (SL1-08-E2, SL1-08-N2, and SL1-08-W2) were submitted to Alpha for laboratory analysis of total and hexavalent chromium as needed for chromium speciation.

The sample results are included in **Table 1** and the sample locations are shown on **Figure 1**.



## 4.0 INVESTIGATIVE AND MONITORING DATA [310 CMR 40.0427(4)(c)]

Investigative and monitoring data obtained during implementation of the IRA are summarized below. Copies of the laboratory analytical reports are included in **Appendix B**.

### 4.1 Sediment Sample Results

The November 13, 2020 shallow sediment samples were analyzed for EPH including PAHs, and metals. The sample results indicated a concentration of chromium above 200 mg/kg at one location (SL1-08) and a concentration of arsenic above 40 mg/kg at one location (SL2-10).

The December 28, 2020 supplemental sediment sample results indicated that surficial arsenic concentrations exceeded 40 mg/kg at one additional location (SL-2-10-N5), and that sediment arsenic impacts exceeding 40 mg/kg were delineated for the 0 to 0.5 foot interval by samples SL2-10-E5, SL2-10-N10, SL2-10-S5, and SL2-10-W5.

The December 28, 2020 supplemental sediment sample chromium speciation results in the vicinity of sample location SL1-08 indicated that less than ten-percent of total chromium exists in the hexavalent form.

Sample results are summarized in **Table 1**. Sample locations are shown on **Figure 1**.

TRC performed a quality assurance/quality control (QA/QC) review of the laboratory report (e.g., data completeness, surrogate recoveries, holding times, sample preservation, and sample duplicates for data reproducibility). Based upon data provided by the laboratory, the surrogate recoveries and duplicate results were within acceptable ranges. The samples were analyzed within specified holding times, and sample temperatures were within acceptable ranges. The laboratory data are deemed representative and acceptable for the intended use. The data usability assessment is included in **Appendix C**.

### 4.2 Imminent Hazard Evaluation

An MCP Method 3 IH Evaluation was performed to support this Draft IRA Completion Report (see **Appendix D**). The IH Evaluation evaluates the risks to recreational visitors who may be exposed to metals in sediment at Kings Cove. The IH Evaluation was conducted in a manner consistent with 310 CMR 40.0426, 310 CMR 40.0951 through 40.0955, and MassDEP's Guidance for Disposal Site Risk Characterization (MassDEP, 1995 and updates).

The IH Evaluation was based on the sediment data collected in November and December 2020. Arsenic, chromium, lead, nickel, and vanadium were identified as the contaminants of potential concern (COPCs) based on the data, the MCP, and applicable guidance.

An IH Evaluation is focused on actual or likely exposures to receptors under current site conditions, considering the current use(s) of the site and the surrounding environment, and considering a period of time that is five years or less. Therefore, the potential receptor used for the IH Evaluation is a 1 to 6-year old child recreational visitor. MassDEP's recommended child visitor exposure assumptions and toxicity values were used to estimate the risks for the IH Evaluation, with applicable modification for sediment exposures.

The IH Evaluation concluded that the concentrations of the COPCs in sediment at Kings Cove do not present an Imminent Hazard. The hazard indices (HIs) and excess lifetime cancer risks (ELCRs) for the young child recreational visitor do not exceed MassDEP Risk Limits for an IH. The total ELCR is less than  $10^{-5}$ , the total HI is less than 10, and the lead HI is less than 1. The complete IH Evaluation is included in **Appendix D**.

## **5.0 LISTING OF FEDERAL STATE OR LOCAL PERMITS NEEDED TO CONDUCT THE IRA [310 CMR 40.0424(1)(h)]**

No federal permits were required for the IRA activities. The IRA activities at Kings Cove are the subject of an Order of Conditions issued by the Weymouth Conservation Commission on October 15, 2020 (Permit #81-1285).

## **6.0 STATEMENT OF IRA FINDINGS AND CONCLUSIONS [310 CMR 40.0427(4)(d)]**

As discussed in Section 4.2 above, TRC has concluded that the concentrations of the COPCs in sediment do not present an IH.

## **7.0 DESCRIPTION OF ONGOING ACTIVITIES [310 CMR 40.0427(4)(g)]**

No further field investigations are planned regarding the concentrations of COPCs in sediment that are the subject of this IRA. Phase II investigations continue at the site that includes Kings Cove in anticipation of the July 28, 2021 submittal of the Phase II Comprehensive Site Investigation and Risk Characterization for the Site.

## **8.0 MANAGEMENT OF REMEDIATION WASTE [310 CMR 40.0427(4)(e)]**

Soil boring material was returned to the boring in the order in which it was removed. Remediation waste was not generated during IRA activities.

## **9.0 LSP OPINION [310 CMR 40.0427(5)]**

The investigation and assessment activities that have been undertaken in performance of this IRA are consistent with the objectives identified in the MCP and have been designed and performed according to our understanding of the conditions present at the Site. The IRA was conducted in conformance with the verbal IRA Plan. As an IH condition does not exist at the Site, IRA activities have been completed. This report is submitted under a MassDEP IRA Completion Statement form (BWSC-105).

## 10.0 PUBLIC INVOLVEMENT [310 CMR 40.0428]

In accordance with the conditions of the Public Involvement (PIP) Plan dated January 30, 2018 for the Disposal Site located at 54-90 Bridge Street (RTN 4-26230), notification of the availability of this Draft IRA Completion Report will be made in accordance with the PIP Plan. **Appendix E** provides copies of notices sent to the Mayor, Board of Health and the PIP mailing list.

The following activities have been completed as part of the PIP process:

- Copies of this Draft IRA Completion Report have been submitted to the two existing document repositories: the Weymouth Health Department and the Tufts Public Library;
- Legal Notice of the availability of this Draft IRA Completion Report will be published in the Weymouth News, the Quincy Patriot Ledger and the Boston Globe;
- This Draft IRA Completion Report has been uploaded to the MassDEP database (eDEP) where it can be viewed and downloaded on-line;
- The Legal Notice will identify that a Public Meeting will be held on-line in Mid-March 2021 to present this report and to receive public comments; and
- The Legal Notice will also announce a 20-day public review period which will end 20 days after the Public Meeting.

A hard copy of this Draft IRA Completion Report will be delivered by U.S. Mail or electronic mail upon request to James Doherty, PE, LSP, at TRC Environmental Corporation, 650 Suffolk Street, Lowell, MA 01854 or by emailing [WeymouthCompressorStation@trccompanies.com](mailto:WeymouthCompressorStation@trccompanies.com). Written comments or questions about this Draft IRA Completion Report may be delivered to James Doherty, PE, LSP, at TRC Environmental Corporation, 650 Suffolk Street, Lowell, MA 01854; or by emailing [WeymouthCompressorStation@trccompanies.com](mailto:WeymouthCompressorStation@trccompanies.com) no later than the end of the public review period.



## TABLE

**Table 1**  
**Summary of Analytical Results for Sediment Samples**  
**90 Bridge Street**  
**Weymouth, Massachusetts**

Sample Location:		SL1-01	SL1-02	SL1-03	SL1-04	SL1-05	SL1-06	SL1-07		SL1-08	SL1-08-E2	SL1-08-N2		SL1-08-W2	SL1-09	SL1-10	SL2-01	SL2-02	SL2-03	SL2-04		
Sample Name:		SL1-1 (0-0.5)	SL1-2 (0-0.5)	SL1-3 (0-0.5)	SL1-4 (0-0.5)	SL1-5 (0-0.5)	SL1-6 (0-0.5)	SL1-7 (0-0.5)	DUP-1	SL1-8 (0-0.5)	SL1-8-E2 0-0.5	SL1-8-N2 0-0.5	DUP1	SL1-8-W2 0-0.5	SL1-9 (0-0.5)	SL1-10 (0-0.5)	SL2-1 (0-0.5)	SL2-2 (0-0.5)	SL2-3 (0-0.5)	SL2-4 (0-0.5)	DUP-2	
Lab Sample ID:		L2050541-12	L2050541-13	L2050541-14	L2050541-15	L2050541-16	L2050541-17	L2050541-18	L2050541-42	L2050541-19	L2057799-06	L2057799-04	L2057799-01	L2057799-07	L2050541-20	L2050541-21	L2050541-22	L2050541-23	L2050541-24	L2050541-25	L2050541-43	
Sample Depth:		0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft
Sample Date:		11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020
Analysis	Analyte	Unit	S-1/GW-3																			
<b>EPH</b>																						
	C9-C18 Aliphatics	mg/kg	1,000	8.95 U	8.58 U	9.38 U	8.52 U	8.16 U	7.90 U	8.11 U	NA	7.50 U	NA	NA	NA	7.57 U	10.1 U	10.4 U	11.6 U	11.6 U	8.57 U	NA
	C19-C36 Aliphatics	mg/kg	3,000	8.95 U	8.58 U	9.38 U	8.52 U	8.16 U	7.90 U	8.11 U	NA	7.50 U	NA	NA	NA	7.57 U	10.1 U	27.6	14.8	11.6 U	8.57 U	NA
	C11-C22 Aromatics	mg/kg	1,000	14.5	8.58 U	14.4	14.0	8.16 U	7.90 U	9.62	NA	7.50 U	NA	NA	NA	7.57 U	62.2	34.1	30.9	11.6 U	8.57 U	NA
<b>PAHs</b>																						
	Naphthalene	mg/kg	500	0.0418	0.00525	0.0102	0.0147	0.0229	0.0320	0.0168	0.0287	0.0154	NA	NA	NA	0.0152	0.0156	0.0400	0.0383	0.0453	0.00702	0.00530 U
	2-Methylnaphthalene	mg/kg	300	0.0295	0.00686	0.0198	0.0349	0.0286	0.0205	0.0301	0.0614	0.0279	NA	NA	NA	0.0330	0.0236	0.1	0.0753	0.0684	0.0111	0.00744
	2-Chloronaphthalene	mg/kg	NS	0.00541 U	0.00525 U	0.00548 U	0.00502 U	0.00630	0.00462 U	0.00481 U	0.00442 U	0.00443 U	NA	NA	NA	0.00467 U	0.00593 U	0.00598 U	0.00662 U	0.00679 U	0.00524 U	0.00530 U
	Acenaphthylene	mg/kg	10	0.0516	0.0497	0.0654	0.0156	0.0233	0.00922	0.00770	0.00947	0.00604	NA	NA	NA	0.00467 U	0.0128	0.14	0.0316	0.0198	0.00524 U	0.00852
	Acenaphthene	mg/kg	1,000	0.0716	0.00525 U	0.00548 U	0.00502 U	0.0235	0.00742	0.00577	0.00937	0.00443 U	NA	NA	NA	0.00467 U	0.00593 U	0.0166	0.0133	0.0156	0.00524 U	0.00530 U
	Fluorene	mg/kg	1,000	0.0545	0.00525 U	0.00966	0.00502 U	0.0197	0.00552	0.00630	0.00614	0.00443 U	NA	NA	NA	0.00467 U	0.00593 U	0.0193	0.0139	0.0157	0.00524 U	0.00530 U
	Phenanthrene	mg/kg	500	0.466	0.0826	0.153	0.106	0.142	0.0869	0.126	0.223	0.0542	NA	NA	NA	0.0822	0.0864	0.392	0.186	0.22	0.0239	0.0269
	Anthracene	mg/kg	1,000	0.134	0.0387	0.0594	0.0183	0.0479	0.0259	0.0144	0.0268	0.00886	NA	NA	NA	0.00796	0.0182	0.134	0.0628	0.0540	0.00524 U	0.00752
	Fluoranthene	mg/kg	1,000	0.829	0.305	0.386	0.103	0.238	0.122	0.114	0.268	0.0412	NA	NA	NA	0.0495	0.128	1.21	0.418	0.241	0.0274	0.0585
	Pyrene	mg/kg	1,000	0.62	0.241	0.317	0.108	0.193	0.0968	0.101	0.251	0.0372	NA	NA	NA	0.0627	0.104	0.989	0.321	0.207	0.0240	0.0491
	Benzo(a)anthracene	mg/kg	7	0.422	0.186	0.235	0.0626	0.128	0.0757	0.0662	0.146	0.0261	NA	NA	NA	0.0369	0.0613	0.669	0.199	0.127	0.0153	0.0332
	Chrysene	mg/kg	70	0.43	0.182	0.256	0.0983	0.16	0.103	0.116	0.157	0.0507	NA	NA	NA	0.0661	0.103	0.84	0.293	0.179	0.0248	0.0379
	Benzo(b)fluoranthene	mg/kg	7	0.404	0.166	0.213	0.0726	0.167	0.0974	0.0955	0.152	0.0391	NA	NA	NA	0.0500	0.0967	0.846	0.321	0.139	0.0223	0.0512
	Benzo(k)fluoranthene	mg/kg	70	0.32	0.149	0.192	0.0475	0.132	0.0566	0.0506	0.0994	0.0205	NA	NA	NA	0.0224	0.0685	0.633	0.185	0.107	0.0149	0.0274
	Benzo(a)pyrene	mg/kg	2	0.403	0.18	0.23	0.0672	0.152	0.0617	0.0698	0.122	0.0265	NA	NA	NA	0.0381	0.0777	0.789	0.249	0.13	0.0175	0.0351
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	0.298	0.123	0.145	0.0501	0.133	0.0491	0.0626	0.0996	0.0208	NA	NA	NA	0.0314	0.0736	0.658	0.215	0.104	0.0163	0.0324
	Dibenzo(a,h)anthracene	mg/kg	0.7	0.0860	0.0280	0.0376	0.0170	0.0394	0.0136	0.0178	0.0253	0.00783	NA	NA	NA	0.0144	0.0179	0.147	0.0506	0.0319	0.00524 U	0.00825
	Benzo(ghi)perylene	mg/kg	1,000	0.256	0.114	0.141	0.0596	0.127	0.0477	0.0674	0.101	0.0253	NA	NA	NA	0.0360	0.0855	0.632	0.209	0.108	0.0170	0.0333
<b>Metals, total</b>																						
	Antimony	mg/kg	20	2.1 U	2.1 U	2.3 U	2.4	2.2	1.9 U	1.9 U	2.2	1.8 U	NA	NA	NA	1.8 U	2.5 U	2.4 U	2.7 U	2.7 U	2.1 U	2.2 U
	Arsenic	mg/kg	20	11	14	22	30	13	11	18	10	15	NA	NA	NA	18	24	14	15	22	19	15
	Barium	mg/kg	1,000	14	14	12	9.8	17	17	16	20	30	NA	NA	NA	20	17	18	29	40	13	14
	Beryllium	mg/kg	90	0.39 U	0.76	0.60	0.59	0.62	0.58	0.45	0.41	0.54	NA	NA	NA	0.59	0.78	0.60	0.62	0.89	0.42	0.51
	Cadmium	mg/kg	70	0.26 U	0.26 U	0.28 U	0.25 U	0.25 U	0.23 U	0.24 U	0.23 U	0.23 U	NA	NA	NA	0.22 U	0.31 U	0.30 U	0.34 U	0.34 U	0.26 U	0.28 U
	Chromium	mg/kg	100	13	20	11	11	16	18	30	17	250	28.7	13.2	16.4	18.4	13	21	18	32	43	14
	Lead	mg/kg	200	51	48	33	50	47	58	30	25	53	NA	NA	NA	54	67	47	78	100	57	40
	Mercury	mg/kg	20	0.107 U	0.096 U	0.102 U	0.098 U	0.103 U	0.081 U	0.083 U	0.084 U	0.088 U	NA	NA	NA	0.084 U	0.100 U	0.126 U	0.198	0.221	0.103 U	0.100 U
	Nickel	mg/kg	600	13	47	21	100	46	77	6,100	1,000	2,100	NA	NA	NA	60	24	41	93	64	28	34
	Selenium	mg/kg	400	2.6 U	2.6 U	2.8 U	2.5 U	2.5 U	2.3 U	2.4 U	2.3 U	2.3 U	NA	NA	NA	2.2 U	3.1 U	3.0 U	3.4 U	3.4 U	2.6 U	2.8 U
	Silver	mg/kg	100	0.65 U	0.65 U	0.71 U	0.63 U	0.63 U	0.58 U	0.59 U	0.57 U	0.58 U	NA	NA	NA	0.56 U	0.77 U	0.75 U	0.84 U	0.85 U	0.65 U	0.70 U
	Thallium	mg/kg	8	0.52 U	0.52 U	0.57 U	0.50 U	0.50 U	0.47 U	0.47 U	0.45 U	0.46 U	NA	NA	NA	0.45 U	0.62 U	0.60 U	0.67 U	0.68 U	0.52 U	0.56 U
	Vanadium	mg/kg	400	37	300	230	630	160	1,100	13,000	6,000	7,200	NA	NA	NA	450	120	150	1,400	220	61	100
	Zinc	mg/kg	1,000	48	84	50	47	82	59	80	61	72	NA	NA	NA	81	110	73	110	130	53	66
<b>General Chemistry</b>																						
	Chromium (VI)	mg/kg	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.932 U	0.957 U	1.54	0.951 U	NA	NA	NA	NA	NA	NA

Notes:  
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).  
NA - Sample not analyzed for the listed analyte.  
NS - No MassDEP standards exist for this analyte.  
U - Analyte was not detected at specified quantitation limit.  
Values in bold indicate the analyte was detected.  
**Values shown in bold and shaded type exceed the listed S-1/GW-3 standard.**

EPH - Extractable Petroleum Hydrocarbons.  
PAHs - Polycyclic Aromatic Hydrocarbons.

**Table 1**  
**Summary of Analytical Results for Sediment Samples**  
**90 Bridge Street**  
**Weymouth, Massachusetts**

Sample Location:		SL2-05	SL2-06	SL2-07	SL2-08	SL2-09	SL2-10	SL2-10-E5	SL2-10-N5	SL2-10-N10	SL2-10-S5		SL2-10-W5	SL3-04	SL3-05	SL3-06	SL3-07	SL3-08	SL3-09	SL3-10		
Sample Name:		SL2-5 (0-0.5)	SL2-6 (0-0.5)	SL2-7 (0-0.5)	SL2-8 (0-0.5)	SL2-9 (0-0.5)	SL2-10 (0-0.5)	SL2-10-E5 0-0.5	SL2-10-N5 0-0.5	SL2-10-N10 0-0.5	SL2-10-S5 0-0.5	DUP2	SL2-10-W5 0-0.5	SL3-4 (0-0.5)	SL3-5 (0-0.5)	SL3-6 (0-0.5)	SL3-7 (0-0.5)	SL3-8 (0-0.5)	SL3-9 (0-0.5)	SL3-10 (0-0.5)		
Lab Sample ID:		L2050541-26	L2050541-27	L2050541-28	L2050541-29	L2050541-30	L2050541-31	L2057799-14	L2057799-16	L2100350-01	L2057799-08	L2057799-02	L2057799-11	L2050541-35	L2050541-36	L2050541-37	L2050541-38	L2050541-39	L2050541-40	L2050541-41		
Sample Depth:		0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft		
Sample Date:		11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020		
Analysis	Analyte	Unit	S-1/GW-3																			
<b>EPH</b>																						
	C9-C18 Aliphatics	mg/kg	1,000	9.35	U	9.78	U	8.35	U	7.86	U	8.70	U	8.72	U	NA	NA	NA	NA	NA	NA	NA
	C19-C36 Aliphatics	mg/kg	3,000	9.35	U	9.78	U	8.35	U	7.86	U	8.70	U	8.72	U	NA	NA	NA	NA	NA	NA	NA
	C11-C22 Aromatics	mg/kg	1,000	9.35	U	<b>18.5</b>	U	8.35	U	7.86	U	8.70	U	<b>38.5</b>	U	NA	NA	NA	NA	NA	NA	NA
<b>PAHs</b>																						
	Naphthalene	mg/kg	500	<b>0.0127</b>		<b>0.0209</b>		<b>0.00900</b>		<b>0.0176</b>		<b>0.0104</b>		<b>0.00745</b>		NA	NA	NA	NA	NA	NA	NA
	2-Methylnaphthalene	mg/kg	300	<b>0.0162</b>		<b>0.0297</b>		<b>0.0147</b>		<b>0.0326</b>		<b>0.0126</b>		<b>0.00708</b>		NA	NA	NA	NA	NA	NA	NA
	2-Chloronaphthalene	mg/kg	NS	0.00531	U	0.00573	U	0.00497	U	0.00461	U	0.00520	U	0.00553	U	NA	NA	NA	NA	NA	NA	NA
	Acenaphthylene	mg/kg	10	<b>0.0148</b>		<b>0.0777</b>		<b>0.00514</b>		<b>0.0135</b>		0.00520	U	0.00553	U	NA	NA	NA	NA	NA	NA	NA
	Acenaphthene	mg/kg	1,000	<b>0.00651</b>		<b>0.0267</b>		0.00497	U	0.00461	U	0.00520	U	0.00553	U	NA	NA	NA	NA	NA	NA	NA
	Fluorene	mg/kg	1,000	<b>0.00652</b>		<b>0.0478</b>		0.00497	U	0.00461	U	0.00520	U	0.00553	U	NA	NA	NA	NA	NA	NA	NA
	Phenanthrene	mg/kg	500	<b>0.0483</b>		<b>0.611</b>		<b>0.0294</b>		<b>0.0510</b>		<b>0.0321</b>		<b>0.0206</b>		NA	NA	NA	NA	NA	NA	NA
	Anthracene	mg/kg	1,000	<b>0.0144</b>		<b>0.147</b>		<b>0.00697</b>		<b>0.0176</b>		<b>0.00667</b>		0.00553	U	NA	NA	NA	NA	NA	NA	NA
	Fluoranthene	mg/kg	1,000	<b>0.0904</b>		<b>0.995</b>		<b>0.0541</b>		<b>0.0922</b>		<b>0.0616</b>		<b>0.0372</b>		NA	NA	NA	NA	NA	NA	NA
	Pyrene	mg/kg	1,000	<b>0.0811</b>		<b>0.812</b>		<b>0.0425</b>		<b>0.0828</b>		<b>0.0497</b>		<b>0.0323</b>		NA	NA	NA	NA	NA	NA	NA
	Benzo(a)anthracene	mg/kg	7	<b>0.0508</b>		<b>0.457</b>		<b>0.0286</b>		<b>0.0550</b>		<b>0.0307</b>		<b>0.0214</b>		NA	NA	NA	NA	NA	NA	NA
	Chrysene	mg/kg	70	<b>0.0647</b>		<b>0.501</b>		<b>0.0403</b>		<b>0.0713</b>		<b>0.0393</b>		<b>0.0300</b>		NA	NA	NA	NA	NA	NA	NA
	Benzo(b)fluoranthene	mg/kg	7	<b>0.0851</b>		<b>0.396</b>		<b>0.0443</b>		<b>0.0742</b>		<b>0.0436</b>		<b>0.0308</b>		NA	NA	NA	NA	NA	NA	NA
	Benzo(k)fluoranthene	mg/kg	70	<b>0.0472</b>		<b>0.283</b>		<b>0.0249</b>		<b>0.0463</b>		<b>0.0302</b>		<b>0.0216</b>		NA	NA	NA	NA	NA	NA	NA
	Benzo(a)pyrene	mg/kg	2	<b>0.0643</b>		<b>0.389</b>		<b>0.0340</b>		<b>0.0612</b>		<b>0.0357</b>		<b>0.0248</b>		NA	NA	NA	NA	NA	NA	NA
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	<b>0.0622</b>		<b>0.274</b>		<b>0.0301</b>		<b>0.0545</b>		<b>0.0328</b>		<b>0.0228</b>		NA	NA	NA	NA	NA	NA	NA
	Dibenzo(a,h)anthracene	mg/kg	0.7	<b>0.0179</b>		<b>0.0697</b>		<b>0.00736</b>		<b>0.0146</b>		<b>0.00721</b>		<b>0.00553</b>		NA	NA	NA	NA	NA	NA	NA
	Benzo(ghi)perylene	mg/kg	1,000	<b>0.0622</b>		<b>0.263</b>		<b>0.0312</b>		<b>0.0570</b>		<b>0.0327</b>		<b>0.0237</b>		NA	NA	NA	NA	NA	NA	NA
<b>Metals, total</b>																						
	Antimony	mg/kg	20	2.3	U	2.3	U	2.0	U	2.1	U	2.1	U	2.1	U	NA	NA	NA	NA	NA	NA	NA
	Arsenic	mg/kg	20	<b>16</b>		<b>24</b>		<b>23</b>		<b>20</b>		<b>8.0</b>		<b>43</b>		<b>14.9</b>		<b>77.6</b>		<b>8.79</b>		<b>16.3</b>
	Barium	mg/kg	1,000	<b>21</b>		<b>23</b>		<b>14</b>		<b>19</b>		<b>6.3</b>		<b>13</b>		NA	NA	NA	NA	NA	NA	NA
	Beryllium	mg/kg	90	<b>0.60</b>		<b>0.72</b>		<b>0.54</b>		<b>0.55</b>		0.39	U	<b>0.59</b>		NA	NA	NA	NA	NA	NA	NA
	Cadmium	mg/kg	70	0.29	U	0.29	U	0.25	U	0.23	U	0.26	U	0.27	U	NA	NA	NA	NA	NA	NA	NA
	Chromium	mg/kg	100	<b>24</b>		<b>24</b>		<b>14</b>		<b>28</b>		<b>10</b>		<b>13</b>		NA	NA	NA	NA	NA	NA	NA
	Lead	mg/kg	200	<b>580</b>		<b>100</b>		<b>31</b>		<b>40</b>		<b>22</b>		<b>42</b>		NA	NA	NA	NA	NA	NA	NA
	Mercury	mg/kg	20	0.098	U	<b>0.174</b>		0.095	U	0.076	U	0.110	U	0.100	U	NA	NA	NA	NA	NA	NA	NA
	Nickel	mg/kg	600	<b>170</b>		<b>94</b>		<b>32</b>		<b>40</b>		<b>17</b>		<b>45</b>		NA	NA	NA	NA	NA	NA	NA
	Selenium	mg/kg	400	2.9	U	2.9	U	2.5	U	2.3	U	2.6	U	2.7	U	NA	NA	NA	NA	NA	NA	NA
	Silver	mg/kg	100	0.72	U	0.72	U	0.62	U	0.58	U	0.65	U	0.67	U	NA	NA	NA	NA	NA	NA	NA
	Thallium	mg/kg	8	0.29	U	0.58	U	0.50	U	0.46	U	0.52	U	0.54	U	NA	NA	NA	NA	NA	NA	NA
	Vanadium	mg/kg	400	<b>480</b>		<b>410</b>		<b>200</b>		<b>110</b>		<b>49</b>		<b>97</b>		NA	NA	NA	NA	NA	NA	NA
	Zinc	mg/kg	1,000	<b>190</b>		<b>110</b>		<b>74</b>		<b>120</b>		<b>81</b>		<b>150</b>		NA	NA	NA	NA	NA	NA	NA
<b>General Chemistry</b>																						
	Chromium (VI)	mg/kg	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

Notes:  
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).  
NA - Sample not analyzed for the listed analyte.  
NS - No MassDEP standards exist for this analyte.  
U - Analyte was not detected at specified quantitation limit.  
Values in bold indicate the analyte was detected.  
**Values shown in bold and shaded type exceed the listed S-1/GW-3 standard.**

EPH - Extractable Petroleum Hydrocarbons.  
PAHs - Polycyclic Aromatic Hydrocarbons.

## FIGURES

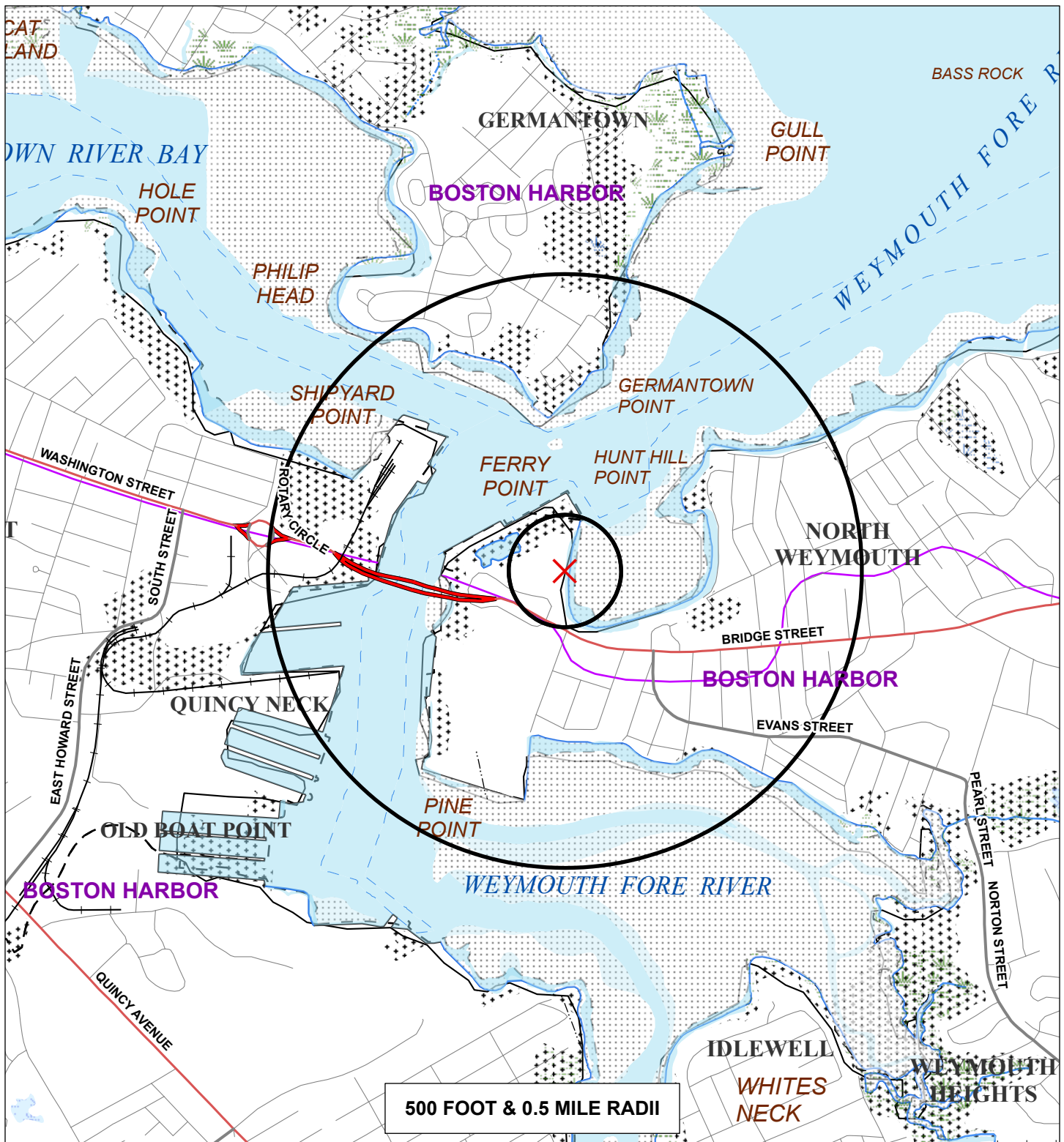


**LEGEND:**

- EXTENT OF SITE ADDRESSED BY IMMEDIATE RESPONSE ACTION.
- MEAN HIGH WATER
- SEDIMENT SAMPLE LOCATION
- SEDIMENT SAMPLE LOCATION NOT SUBMITTED FOR LABORATORY ANALYSIS.



<b>PROJECT:</b>		<b>90 Bridge Street Weymouth, Massachusetts</b>	
<b>TITLE:</b>			
<b>SEDIMENT SAMPLING LOCATION MAP</b>			
DRAWN BY:	MAN	PROJ NO.:	414883
CHECKED BY:	GP	<b>FIGURE 1</b>	
APPROVED BY:	JD		
DATE:	JAN. 2021		
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600	
FILE NO.:		sediment_sampling_2021_01_11.dwg	



500 FOOT & 0.5 MILE RADII

- Roads: Limited Access, Multi-Lane, Major/Minor, Track, Trail
- Railroad, Pipeline, Powerline
- Major Basin, Sub Basin, Perennial Stream, Intermittent Stream, Shoreline, Man made Shore, Dam, Aqueduct
- Wetland, Salt Wetland, Submerged Wetland, Open Water, Reservoir, Tidal Flat/Shoal
- Potentially Productive Aquifers: Medium, High Yield
- Non-Potential Drinking Water Source Area: Medium, High Yield
- EPA Sole Source Aquifer, FEMA 100 Yr. Floodplain, DEP Solid Waste Facility
- Approved Zone II, IWPA, Surface Water Supply Zone A
- Protected Open Space, ACEC
- Priority Habitat, Certified Vernal Pool
- Boundaries: County and Town
- Public Water Supplies: Ground, Surface, Non-Community (NTNC, TNC) Source: MassGIS/EOEA

Wannalancit Mills  
650 Suffolk Street  
Lowell, MA 01854  
978-970-5600

FIGURE 2

MASSDEP PRIORITY RESOURCES MAP  
90 BRIDGE STREET  
WEYMOUTH, MA

0 1,250  
Feet  
JAN. 2021

**APPENDIX A**

**XRF SCREENING RESULTS**

**Appendix A  
XRF Screening Results  
90 Bridge Street  
Weymouth, Massachusetts**

Date	Time	Reading	Mode	Elapsed	ID	As	As +/-	Ave	Cr	Cr +/-	Ave	Pass/Fail	Live Time	T Instrument Model	Tube Anode	Unit	LBP Result	LPB Concer	LPB Error	Count Rate	Resolution	Peak 1	Peak 2	Cal Check Status	
12/28/2020	10:20:46	#1	Cal Che	14.77	Std.								11.76	512345 Delta Premium	Ta	%				61425	150	320	870	Passed	
12/28/2020	10:22:57	#2	Soil	19.23	NIST 2710	671	20		ND			PASS	14.27	512345 Delta Premium	Ta	PPM									
12/28/2020	10:24:58	#3	Soil	19.15	NIST 2711A	115	9		68	19		PASS	14.02	512345 Delta Premium	Ta	PPM									
12/28/2020	10:26:05	#4	Soil	19.52	Blank	ND			ND			PASS	15.59	512345 Delta Premium	Ta	PPM									
12/28/2020	13:04:52	#5	Soil	19.5	SL1-8R (Spot shot)	15	2		176	33		PASS	15.66	512345 Delta Premium	Ta	PPM									
12/28/2020	13:24:55	#6	Soil	19.16	SL1-8R 0-0.5'	16.6	2		182	22		PASS	14	512345 Delta Premium	Ta	PPM									
12/28/2020	13:26:06	#7	Soil	19.28	SL1-8R 0-0.5' D	24	2		150	25	166	PASS	14.5	512345 Delta Premium	Ta	PPM									
12/28/2020	13:28:02	#8	Soil	19.16	<u>SL1-8-N2 0-0.5'</u>	47	3		240	24		PASS	13.99	512345 Delta Premium	Ta	PPM									
12/28/2020	13:29:30	#9	Soil	19	SL1-8-N2 0-0.5' D	22	2		99	19	170	PASS	13.4	512345 Delta Premium	Ta	PPM									
12/28/2020	13:31:29	#10	Soil	19.24	SL1-8-S2 0-0.5'	16	2		78	21		PASS	14.31	512345 Delta Premium	Ta	PPM									
12/28/2020	13:33:05	#11	Soil	19.23	SL1-8-S2 0-0.5' D	20	2		99	23	88.5	PASS	14.3	512345 Delta Premium	Ta	PPM									
12/28/2020	13:34:23	#12	Soil	19.17	<u>SL1-8-E2 0-0.5'</u>	20.9	2		281	25		PASS	14.08	512345 Delta Premium	Ta	PPM									
12/28/2020	13:35:30	#13	Soil	19.17	SL1-8-E2 0-0.5' D	25	2		137	21	209	PASS	14.11	512345 Delta Premium	Ta	PPM									
12/28/2020	13:37:05	#14	Soil	19.26	<u>SL1-8-W2 0-0.5'</u>	33	3		209	32		PASS	14.26	512345 Delta Premium	Ta	PPM									
12/28/2020	13:38:16	#15	Soil	19.23	SL1-8-W2 0-0.5' D	83	4		182	31	196	PASS	14.09	512345 Delta Premium	Ta	PPM									
12/28/2020	14:06:01	#16	Soil	19.11	SL2-10 Fire Brick	10.5	1.6		119	20		PASS	13.91	512345 Delta Premium	Ta	PPM									
12/28/2020	14:07:41	#17	Soil	19.22	SL2-10 Fire Brick (Fresh break)	ND			155	20		PASS	14.42	512345 Delta Premium	Ta	PPM									
12/28/2020	14:10:01	#18	Soil	19.26	SL2-10 Red Clay Brick	7	2		81	23		PASS	14.48	512345 Delta Premium	Ta	PPM									
12/28/2020	14:11:42	#19	Soil	19.49	SL2-10 Clinkers	ND			118	33		PASS	15.49	512345 Delta Premium	Ta	PPM									
12/28/2020	14:13:35	#20	Soil	19.28	SL2-10 Clinkers	8.7	1.9		221	28		PASS	14.5	512345 Delta Premium	Ta	PPM									
12/28/2020	14:20:25	#21	Soil	18.91	<u>SL2-10-S5 0-0.5'</u>	11.6	1.5		ND			PASS	13.17	512345 Delta Premium	Ta	PPM									
12/28/2020	14:25:08	#22	Soil	18.98	SL2-10-S5 0-0.5' D	10.7	1.6	11.2	ND			PASS	13.37	512345 Delta Premium	Ta	PPM									
12/28/2020	14:26:51	#23	Soil	19.06	SL2-10-S10 0-0.5'	22	2		76	20		PASS	13.56	512345 Delta Premium	Ta	PPM									
12/28/2020	14:29:42	#24	Soil	19.12	SL2-10-S10 0-0.5' D	26	2	24	106	20		PASS	13.79	512345 Delta Premium	Ta	PPM									
12/28/2020	14:31:33	#25	Soil	19.08	SL2-10-S15 0-0.5'	30	3		65	20		PASS	13.62	512345 Delta Premium	Ta	PPM									
12/28/2020	14:34:12	#26	Soil	18.87	SL2-10-S15 0-0.5' D	18	1.8	24	ND			PASS	12.87	512345 Delta Premium	Ta	PPM									
12/28/2020	14:45:42	#27	Soil	19.25	<u>SL2-10-W5 0-0.5'</u>	37	3		ND			PASS	14.43	512345 Delta Premium	Ta	PPM									
12/28/2020	14:46:56	#28	Soil	19.3	SL2-10-W5 0-0.5' D	29	3	33	ND			PASS	14.63	512345 Delta Premium	Ta	PPM									
12/28/2020	14:48:08	#29	Soil	19.24	SL2-10-W10 0-0.5'	28	2		84	22		PASS	14.29	512345 Delta Premium	Ta	PPM									
12/28/2020	14:49:05	#30	Soil	19.33	SL2-10-W10 0-0.5' D	15	3	21.5	ND			PASS	14.59	512345 Delta Premium	Ta	PPM									
12/28/2020	14:52:01	#31	Soil	19.37	SL2-10-W15 0-0.5'	31	5		ND			PASS	14.65	512345 Delta Premium	Ta	PPM									
12/28/2020	14:53:24	#32	Soil	19.42	SL2-10-W15 0-0.5' D	20	2	25.5	ND			PASS	15.2	512345 Delta Premium	Ta	PPM									
12/28/2020	14:56:03	#33	Soil	19.1	<u>SL2-10-E5 0-0.5'</u>	19.2	1.9		ND			PASS	13.82	512345 Delta Premium	Ta	PPM									
12/28/2020	14:57:22	#34	Soil	19.09	SL2-10-E5 0-0.5' D	15.9	2	17.6	178	22		PASS	13.68	512345 Delta Premium	Ta	PPM									
12/28/2020	14:59:03	#35	Soil	19.12	SL2-10-E10 0-0.5'	13.2	1.8		ND			PASS	13.86	512345 Delta Premium	Ta	PPM									
12/28/2020	15:00:29	#36	Soil	19.14	SL2-10-E10 0-0.5' D	16.7	2	15	ND			PASS	13.9	512345 Delta Premium	Ta	PPM									
12/28/2020	15:05:46	#37	Soil	19.16	<u>SL2-10-N5 0-0.5'</u>	18	2		ND			PASS	13.99	512345 Delta Premium	Ta	PPM									
12/28/2020	15:06:43	#38	Soil	18.98	SL2-10-N5 0-0.5' D	23.9	1.9	21	ND			PASS	13.32	512345 Delta Premium	Ta	PPM									
12/28/2020	15:07:52	#39	Soil	19.08	SL2-10-N10 0-0.5'	7.6	1.7		65	18		PASS	13.69	512345 Delta Premium	Ta	PPM									
12/28/2020	15:08:46	#40	Soil	19.13	SL2-10-N10 0-0.5' D	14.5	1.9	11.1	ND			PASS	13.82	512345 Delta Premium	Ta	PPM									
12/28/2020	15:09:55	#41	Soil	18.98	SL2-10-N15 0-0.5'	8.6	1.7		84	18		PASS	13.25	512345 Delta Premium	Ta	PPM									
12/28/2020	15:11:02	#42	Soil	19.01	SL2-10-N15 0-0.5' D	9.8	1.8	9.2	65	18		PASS	13.38	512345 Delta Premium	Ta	PPM									
12/28/2020	15:14:43	#43	Soil	19.12	SL1-8 Fire Brick	6.1	1.5		219	21		PASS	13.93	512345 Delta Premium	Ta	PPM									
12/28/2020	15:16:28	#44	Soil	19.36	SL1-8 Clinkers	ND			212	37		PASS	14.78	512345 Delta Premium	Ta	PPM									
12/28/2020	15:18:56	#45	Soil	19.65	SL1-8 Wire Scrap	26	4		118639	1877		PASS	16.36	512345 Delta Premium	Ta	PPM									

Chromium plated wire is almost 12% Cr



**APPENDIX B**

**LABORATORY ANALYTICAL REPORTS**



## ANALYTICAL REPORT

Lab Number:	L2050541
Client:	TRC Environmental Consultants Wannalancit Mills 650 Suffolk Street Lowell, MA 01854
ATTN:	James Doherty
Phone:	(978) 656-3680
Project Name:	ENBRIDGE WEYMOUTH COMPRESSOR
Project Number:	414883
Report Date:	12/04/20

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:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2050541-01	SW-1	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:00	11/13/20
L2050541-02	SW-2	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:08	11/13/20
L2050541-03	SW-3	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:11	11/13/20
L2050541-04	SW-4	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:37	11/13/20
L2050541-05	SW-5	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:40	11/13/20
L2050541-06	SW-6	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:44	11/13/20
L2050541-07	SW-7	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:48	11/13/20
L2050541-08	SW-8	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:18	11/13/20
L2050541-09	SW-9	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:22	11/13/20
L2050541-10	SW-10	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:26	11/13/20
L2050541-11	DUP-11	WATER	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:41	11/13/20
L2050541-12	SL1-1 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:00	11/13/20
L2050541-13	SL1-2 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:32	11/13/20
L2050541-14	SL1-3 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:52	11/13/20
L2050541-15	SL1-4 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:45	11/13/20
L2050541-16	SL1-5 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:50	11/13/20
L2050541-17	SL1-6 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:20	11/13/20
L2050541-18	SL1-7 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:05	11/13/20
L2050541-19	SL1-8 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:15	11/13/20
L2050541-20	SL1-9 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:30	11/13/20
L2050541-21	SL1-10 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 11:24	11/13/20
L2050541-22	SL2-1 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:05	11/13/20
L2050541-23	SL2-2 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:45	11/13/20
L2050541-24	SL2-3 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:48	11/13/20

<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>
L2050541-25	SL2-4 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:50	11/13/20
L2050541-26	SL2-5 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:35	11/13/20
L2050541-27	SL2-6 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:35	11/13/20
L2050541-28	SL2-7 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:30	11/13/20
L2050541-29	SL2-8 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:00	11/13/20
L2050541-30	SL2-9 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:15	11/13/20
L2050541-31	SL2-10 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:11	11/13/20
L2050541-32	SL3-1 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:35	11/13/20
L2050541-33	SL3-2 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 15:30	11/13/20
L2050541-34	SL3-3 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 15:00	11/13/20
L2050541-35	SL3-4 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:55	11/13/20
L2050541-36	SL3-5 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:51	11/13/20
L2050541-37	SL3-6 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:40	11/13/20
L2050541-38	SL3-7 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 15:10	11/13/20
L2050541-39	SL3-8 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:33	11/13/20
L2050541-40	SL3-9 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:11	11/13/20
L2050541-41	SL3-10 (0-0.5')	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 14:09	11/13/20
L2050541-42	DUP-1	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 12:06	11/13/20
L2050541-43	DUP-2	SEDIMENT	6 BRIDGE STREET, WEYMOUTH, MA	11/13/20 13:51	11/13/20

Project Name: ENBRIDGE WEYMOUTH COMPRESSOR

Lab Number: L2050541

Project Number: 414883

Report Date: 12/04/20

**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:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

### 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:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

### Case Narrative (continued)

#### MCP Related Narratives

##### Sample Receipt

At the client's request, the collection date was changed on all samples.

##### PAHs by SIM

L2050541-22, -32, and -33: The sample was re-analyzed on dilution in order to quantify the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

In reference to question H:

The WG1434890-2 LCS recovery, associated with L2050541-26 and -32 through -43, is outside the individual acceptance criteria for naphthalene (39%); however, the MS/MSD recoveries are within the method criteria. The results of the associated samples are reported. The LCS/LCSD RPD is above the acceptance criteria for naphthalene (31%).

The WG1434849-5 MS recoveries, performed on L2050541-16, are outside the acceptance criteria for naphthalene (37%) and phenanthrene (38%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

In reference to question I:

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

##### EPH

L2050541-33, -34, -37, -38, and -40: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

In reference to question I:

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

##### Dissolved Metals

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

### Case Narrative (continued)

L2050541-01 through -11: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by the high concentrations of non-target elements.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

#### Total Metals

In reference to question G:

L2050541-12 through -43: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The WG1438827-4/-5 MS/MSD recoveries, performed on L2050541-16, are outside the acceptance criteria for chromium (MSD 130%) and vanadium (MS 269%). Re-analysis of the MS/MSD yielded unacceptable recoveries for chromium and vanadium >125%. The LCS recoveries are acceptable; therefore, no further action was taken. The MS/MSD RPD for vanadium (37%) is above the acceptance criteria.

The WG1438827-7/-8 MS/MSD recoveries, performed on L2050541-26, are outside the acceptance criteria for lead (0%/0%), nickel (MSD 0%), vanadium (MS 0%), and zinc (0%/18%). Re-analysis of the MS yielded unacceptable recoveries of <30%, but the sample detections are above the RL. The LCS recoveries are acceptable; therefore, no further action was taken. The MS/MSD RPD for nickel (38%) is above the acceptance criteria.

The WG1438827-7/-8 MS/MSD recoveries, performed on L2050541-26, are outside the acceptance criteria for nickel (MS 35%) and vanadium (MSD 55%). Re-analysis of the MS/MSD yielded unacceptable recoveries in the range of 30-74%. The LCS recoveries are acceptable; therefore, no further action was taken.

The WG1438828-4/-5 MS/MSD recoveries, performed on L2050541-16, are outside the acceptance criteria for mercury (134%/134%). Re-analysis of the MS/MSD yielded unacceptable recoveries for mercury in the range of 30-74% or >125%. The LCS recovery is acceptable; therefore, no further action was taken.

The WG1438828-6/-7 MS/MSD recoveries, performed on L2050541-26, are outside the acceptance criteria for mercury (131%/133%). Re-analysis of the MS/MSD yielded unacceptable recoveries for mercury >125%.



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

### Case Narrative (continued)

The LCS recovery is acceptable; therefore, no further action was taken.

The WG1438827-9 serial dilution analysis, associated with L2050541-26, had a %D above the acceptance criteria for lead (50%).

#### Non-MCP Related Narratives

##### Acid Volatile Sulfide w/Simultaneously Extracted Metals

The WG1436715-3 MS recoveries, performed on L2050541-14, are outside the acceptance criteria for copper (130%) and lead (370%); however, the associated LCS recoveries are within overall method allowances. No further action was required.

The WG1436715-4 Laboratory Duplicate RPD for lead (26%), performed on L2050541-14, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1439657-4 Laboratory Duplicate RPD for sulfide, acid volatile (29%), performed on L2050541-14, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

#### Total Organic Carbon

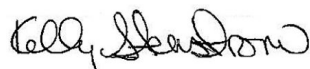
L2050541-14, -17, -24, -29, -34, and -38 were frozen upon receipt in order to arrest the holding time.

The WG1437504-4 MS recoveries for total organic carbon (rep1) (48%) and total organic carbon (rep2) (41%), performed on L2050541-14, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1437504-3 Laboratory Duplicate RPD for total organic carbon (rep2) (31%), performed on L2050541-14, is outside the acceptance criteria of 25%. 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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 12/04/20

## QC OUTLIER SUMMARY REPORT

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP PAHs by GC/MS-SIM - Mansfield Lab								
8270D-SIM	Batch QC (L2050541-16)	WG1434849-5	Naphthalene	MSD	37	40-140	12-25,27-31	potential low bias
8270D-SIM	Batch QC (L2050541-16)	WG1434849-5	Phenanthrene	MSD	38	40-140	12-25,27-31	potential low bias
8270D-SIM	Batch QC	WG1434890-2	Naphthalene	LCS	39	40-140	26,32-43	potential low bias
8270D-SIM	Batch QC	WG1434890-3	Naphthalene	LCSD	31	30	26,32-43	non-directional bias
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab								
6020B	Batch QC (L2050541-14)	WG1436715-3	Copper, Total	MS	130	75-125	14,17,24,29,34,38	potential high bias
6020B	Batch QC (L2050541-14)	WG1436715-3	Lead, Total	MS	370	75-125	14,17,24,29,34,38	potential high bias
6020B	Batch QC (L2050541-14)	WG1436715-4	Lead, Total	Duplicate	26	20	14,17,24,29,34,38	non-directional bias
MCP Total Metals - Mansfield Lab								
6020B	Batch QC (L2050541-16)	WG1438827-4	Vanadium, Total	MS	269	75-125	12-31	potential high bias
6020B	Batch QC (L2050541-16)	WG1438827-5	Chromium, Total	MSD	130	75-125	12-31	potential high bias
6020B	Batch QC (L2050541-16)	WG1438827-5	Vanadium, Total	MSD	37	35	12-31	non-directional bias
6020B	Batch QC (L2050541-26)	WG1438827-7	Lead, Total	MS	0	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-7	Nickel, Total	MS	35	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-7	Vanadium, Total	MS	0	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-7	Zinc, Total	MS	0	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-8	Lead, Total	MSD	0	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-8	Nickel, Total	MSD	0	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-8	Nickel, Total	MSD	38	35	12-31	non-directional bias
6020B	Batch QC (L2050541-26)	WG1438827-8	Vanadium, Total	MSD	55	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-8	Zinc, Total	MSD	18	75-125	12-31	potential low bias
6020B	Batch QC (L2050541-26)	WG1438827-9	Lead, Total	SERDIL	50	20	12-31	non-directional bias
7471B	Batch QC (L2050541-16)	WG1438828-4	Mercury, Total	MS	134	75-125	12-31	potential high bias
7471B	Batch QC (L2050541-16)	WG1438828-5	Mercury, Total	MSD	134	75-125	12-31	potential high bias
7471B	Batch QC (L2050541-26)	WG1438828-6	Mercury, Total	MS	131	75-125	12-31	potential high bias
7471B	Batch QC (L2050541-26)	WG1438828-7	Mercury, Total	MSD	133	75-125	12-31	potential high bias

## QC OUTLIER SUMMARY REPORT

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
Total Organic Carbon - Mansfield Lab								
-	Batch QC (L2050541-14)	WG1437504-3	Total Organic Carbon (Rep2)	Duplicate	31	25	14,17,24,29, 34,38	non-directional bias
-	Batch QC (L2050541-14)	WG1437504-4	Total Organic Carbon (Rep1)	MS	48	75-125	14,17,24,29, 34,38	potential low bias
-	Batch QC (L2050541-14)	WG1437504-4	Total Organic Carbon (Rep2)	MS	41	75-125	14,17,24,29, 34,38	potential low bias

# ORGANICS

# SEMIVOLATILES

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-01  
**Client ID:** SW-1  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:00  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 15:04  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	222		ng/l	38.5	--	1
2-Methylnaphthalene	43.9		ng/l	38.5	--	1
2-Chloronaphthalene	ND		ng/l	38.5	--	1
Acenaphthylene	ND		ng/l	38.5	--	1
Acenaphthene	ND		ng/l	38.5	--	1
Fluorene	ND		ng/l	38.5	--	1
Phenanthrene	ND		ng/l	38.5	--	1
Anthracene	ND		ng/l	38.5	--	1
Fluoranthene	53.8		ng/l	38.5	--	1
Pyrene	39.8		ng/l	38.5	--	1
Benz(a)anthracene	ND		ng/l	38.5	--	1
Chrysene	ND		ng/l	38.5	--	1
Benzo(b)fluoranthene	ND		ng/l	38.5	--	1
Benzo(k)fluoranthene	ND		ng/l	38.5	--	1
Benzo(a)pyrene	ND		ng/l	38.5	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	38.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	38.5	--	1
Benzo(ghi)perylene	ND		ng/l	38.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	72		30-130
Pyrene-d10	77		30-130
Benzo(b)fluoranthene-d12	77		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-02  
**Client ID:** SW-2  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:08  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 15:38  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	430		ng/l	38.5	--	1
2-Methylnaphthalene	67.9		ng/l	38.5	--	1
2-Chloronaphthalene	ND		ng/l	38.5	--	1
Acenaphthylene	ND		ng/l	38.5	--	1
Acenaphthene	ND		ng/l	38.5	--	1
Fluorene	ND		ng/l	38.5	--	1
Phenanthrene	ND		ng/l	38.5	--	1
Anthracene	ND		ng/l	38.5	--	1
Fluoranthene	ND		ng/l	38.5	--	1
Pyrene	ND		ng/l	38.5	--	1
Benz(a)anthracene	ND		ng/l	38.5	--	1
Chrysene	ND		ng/l	38.5	--	1
Benzo(b)fluoranthene	ND		ng/l	38.5	--	1
Benzo(k)fluoranthene	ND		ng/l	38.5	--	1
Benzo(a)pyrene	ND		ng/l	38.5	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	38.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	38.5	--	1
Benzo(ghi)perylene	ND		ng/l	38.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	67		30-130
Pyrene-d10	77		30-130
Benzo(b)fluoranthene-d12	82		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-03  
 Client ID: SW-3  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 11:11  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/01/20 16:12  
 Analyst: GP

Extraction Method: EPA 3510C  
 Extraction Date: 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	38.5	--	1
2-Methylnaphthalene	ND		ng/l	38.5	--	1
2-Chloronaphthalene	ND		ng/l	38.5	--	1
Acenaphthylene	ND		ng/l	38.5	--	1
Acenaphthene	ND		ng/l	38.5	--	1
Fluorene	ND		ng/l	38.5	--	1
Phenanthrene	ND		ng/l	38.5	--	1
Anthracene	ND		ng/l	38.5	--	1
Fluoranthene	ND		ng/l	38.5	--	1
Pyrene	ND		ng/l	38.5	--	1
Benz(a)anthracene	ND		ng/l	38.5	--	1
Chrysene	ND		ng/l	38.5	--	1
Benzo(b)fluoranthene	ND		ng/l	38.5	--	1
Benzo(k)fluoranthene	ND		ng/l	38.5	--	1
Benzo(a)pyrene	ND		ng/l	38.5	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	38.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	38.5	--	1
Benzo(ghi)perylene	ND		ng/l	38.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	68		30-130
Pyrene-d10	75		30-130
Benzo(b)fluoranthene-d12	76		30-130



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-04  
**Client ID:** SW-4  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:37  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 16:46  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	38.5	--	1
2-Methylnaphthalene	ND		ng/l	38.5	--	1
2-Chloronaphthalene	ND		ng/l	38.5	--	1
Acenaphthylene	ND		ng/l	38.5	--	1
Acenaphthene	ND		ng/l	38.5	--	1
Fluorene	ND		ng/l	38.5	--	1
Phenanthrene	ND		ng/l	38.5	--	1
Anthracene	ND		ng/l	38.5	--	1
Fluoranthene	93.7		ng/l	38.5	--	1
Pyrene	73.7		ng/l	38.5	--	1
Benz(a)anthracene	40.9		ng/l	38.5	--	1
Chrysene	57.3		ng/l	38.5	--	1
Benzo(b)fluoranthene	65.4		ng/l	38.5	--	1
Benzo(k)fluoranthene	41.4		ng/l	38.5	--	1
Benzo(a)pyrene	49.6		ng/l	38.5	--	1
Indeno(1,2,3-cd)Pyrene	43.8		ng/l	38.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	38.5	--	1
Benzo(ghi)perylene	46.3		ng/l	38.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	69		30-130
Pyrene-d10	73		30-130
Benzo(b)fluoranthene-d12	74		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-05  
 Client ID: SW-5  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 12:40  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/01/20 17:20  
 Analyst: GP

Extraction Method: EPA 3510C  
 Extraction Date: 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	41.7	--	1
2-Methylnaphthalene	ND		ng/l	41.7	--	1
2-Chloronaphthalene	ND		ng/l	41.7	--	1
Acenaphthylene	ND		ng/l	41.7	--	1
Acenaphthene	ND		ng/l	41.7	--	1
Fluorene	ND		ng/l	41.7	--	1
Phenanthrene	ND		ng/l	41.7	--	1
Anthracene	ND		ng/l	41.7	--	1
Fluoranthene	48.1		ng/l	41.7	--	1
Pyrene	ND		ng/l	41.7	--	1
Benz(a)anthracene	ND		ng/l	41.7	--	1
Chrysene	ND		ng/l	41.7	--	1
Benzo(b)fluoranthene	ND		ng/l	41.7	--	1
Benzo(k)fluoranthene	ND		ng/l	41.7	--	1
Benzo(a)pyrene	ND		ng/l	41.7	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	41.7	--	1
Dibenz(a,h)anthracene	ND		ng/l	41.7	--	1
Benzo(ghi)perylene	ND		ng/l	41.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	69		30-130
Pyrene-d10	72		30-130
Benzo(b)fluoranthene-d12	73		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-06  
**Client ID:** SW-6  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:44  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 17:54  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	38.5	--	1
2-Methylnaphthalene	ND		ng/l	38.5	--	1
2-Chloronaphthalene	ND		ng/l	38.5	--	1
Acenaphthylene	ND		ng/l	38.5	--	1
Acenaphthene	ND		ng/l	38.5	--	1
Fluorene	ND		ng/l	38.5	--	1
Phenanthrene	ND		ng/l	38.5	--	1
Anthracene	69.8		ng/l	38.5	--	1
Fluoranthene	ND		ng/l	38.5	--	1
Pyrene	ND		ng/l	38.5	--	1
Benz(a)anthracene	ND		ng/l	38.5	--	1
Chrysene	ND		ng/l	38.5	--	1
Benzo(b)fluoranthene	ND		ng/l	38.5	--	1
Benzo(k)fluoranthene	ND		ng/l	38.5	--	1
Benzo(a)pyrene	ND		ng/l	38.5	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	38.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	38.5	--	1
Benzo(ghi)perylene	ND		ng/l	38.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	69		30-130
Pyrene-d10	76		30-130
Benzo(b)fluoranthene-d12	79		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-07  
**Client ID:** SW-7  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:48  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 18:28  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	40.0	--	1
2-Methylnaphthalene	ND		ng/l	40.0	--	1
2-Chloronaphthalene	ND		ng/l	40.0	--	1
Acenaphthylene	ND		ng/l	40.0	--	1
Acenaphthene	ND		ng/l	40.0	--	1
Fluorene	ND		ng/l	40.0	--	1
Phenanthrene	ND		ng/l	40.0	--	1
Anthracene	ND		ng/l	40.0	--	1
Fluoranthene	ND		ng/l	40.0	--	1
Pyrene	ND		ng/l	40.0	--	1
Benz(a)anthracene	ND		ng/l	40.0	--	1
Chrysene	ND		ng/l	40.0	--	1
Benzo(b)fluoranthene	ND		ng/l	40.0	--	1
Benzo(k)fluoranthene	ND		ng/l	40.0	--	1
Benzo(a)pyrene	ND		ng/l	40.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	40.0	--	1
Dibenz(a,h)anthracene	ND		ng/l	40.0	--	1
Benzo(ghi)perylene	ND		ng/l	40.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	52		30-130
Pyrene-d10	55		30-130
Benzo(b)fluoranthene-d12	54		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-08  
**Client ID:** SW-8  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:18  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 19:02  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	41.7	--	1
2-Methylnaphthalene	ND		ng/l	41.7	--	1
2-Chloronaphthalene	ND		ng/l	41.7	--	1
Acenaphthylene	ND		ng/l	41.7	--	1
Acenaphthene	ND		ng/l	41.7	--	1
Fluorene	ND		ng/l	41.7	--	1
Phenanthrene	ND		ng/l	41.7	--	1
Anthracene	ND		ng/l	41.7	--	1
Fluoranthene	44.6		ng/l	41.7	--	1
Pyrene	ND		ng/l	41.7	--	1
Benz(a)anthracene	ND		ng/l	41.7	--	1
Chrysene	ND		ng/l	41.7	--	1
Benzo(b)fluoranthene	ND		ng/l	41.7	--	1
Benzo(k)fluoranthene	ND		ng/l	41.7	--	1
Benzo(a)pyrene	ND		ng/l	41.7	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	41.7	--	1
Dibenz(a,h)anthracene	ND		ng/l	41.7	--	1
Benzo(ghi)perylene	ND		ng/l	41.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	66		30-130
Pyrene-d10	71		30-130
Benzo(b)fluoranthene-d12	72		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-09  
**Client ID:** SW-9  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:22  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 19:36  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	38.5	--	1
2-Methylnaphthalene	ND		ng/l	38.5	--	1
2-Chloronaphthalene	ND		ng/l	38.5	--	1
Acenaphthylene	ND		ng/l	38.5	--	1
Acenaphthene	ND		ng/l	38.5	--	1
Fluorene	ND		ng/l	38.5	--	1
Phenanthrene	ND		ng/l	38.5	--	1
Anthracene	ND		ng/l	38.5	--	1
Fluoranthene	102		ng/l	38.5	--	1
Pyrene	85.3		ng/l	38.5	--	1
Benz(a)anthracene	57.4		ng/l	38.5	--	1
Chrysene	82.9		ng/l	38.5	--	1
Benzo(b)fluoranthene	80.5		ng/l	38.5	--	1
Benzo(k)fluoranthene	59.3		ng/l	38.5	--	1
Benzo(a)pyrene	67.3		ng/l	38.5	--	1
Indeno(1,2,3-cd)Pyrene	53.2		ng/l	38.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	38.5	--	1
Benzo(ghi)perylene	55.6		ng/l	38.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	64		30-130
Pyrene-d10	71		30-130
Benzo(b)fluoranthene-d12	68		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-10  
**Client ID:** SW-10  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:26  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 21:17  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	207		ng/l	38.5	--	1
2-Methylnaphthalene	41.8		ng/l	38.5	--	1
2-Chloronaphthalene	ND		ng/l	38.5	--	1
Acenaphthylene	ND		ng/l	38.5	--	1
Acenaphthene	ND		ng/l	38.5	--	1
Fluorene	ND		ng/l	38.5	--	1
Phenanthrene	ND		ng/l	38.5	--	1
Anthracene	ND		ng/l	38.5	--	1
Fluoranthene	ND		ng/l	38.5	--	1
Pyrene	ND		ng/l	38.5	--	1
Benz(a)anthracene	ND		ng/l	38.5	--	1
Chrysene	ND		ng/l	38.5	--	1
Benzo(b)fluoranthene	ND		ng/l	38.5	--	1
Benzo(k)fluoranthene	ND		ng/l	38.5	--	1
Benzo(a)pyrene	ND		ng/l	38.5	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	38.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	38.5	--	1
Benzo(ghi)perylene	ND		ng/l	38.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	57		30-130
Pyrene-d10	67		30-130
Benzo(b)fluoranthene-d12	72		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-11  
**Client ID:** DUP-11  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:41  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/01/20 21:51  
**Analyst:** GP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ng/l	43.5	--	1
2-Methylnaphthalene	ND		ng/l	43.5	--	1
2-Chloronaphthalene	ND		ng/l	43.5	--	1
Acenaphthylene	ND		ng/l	43.5	--	1
Acenaphthene	ND		ng/l	43.5	--	1
Fluorene	ND		ng/l	43.5	--	1
Phenanthrene	ND		ng/l	43.5	--	1
Anthracene	ND		ng/l	43.5	--	1
Fluoranthene	48.5		ng/l	43.5	--	1
Pyrene	ND		ng/l	43.5	--	1
Benz(a)anthracene	ND		ng/l	43.5	--	1
Chrysene	ND		ng/l	43.5	--	1
Benzo(b)fluoranthene	ND		ng/l	43.5	--	1
Benzo(k)fluoranthene	ND		ng/l	43.5	--	1
Benzo(a)pyrene	ND		ng/l	43.5	--	1
Indeno(1,2,3-cd)Pyrene	ND		ng/l	43.5	--	1
Dibenz(a,h)anthracene	ND		ng/l	43.5	--	1
Benzo(ghi)perylene	ND		ng/l	43.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	63		30-130
Pyrene-d10	69		30-130
Benzo(b)fluoranthene-d12	68		30-130



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-12  
**Client ID:** SL1-1 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:00  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/02/20 14:53  
**Analyst:** GP  
**Percent Solids:** 74%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 15:10  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	41.8		ug/kg	5.41	--	1
2-Methylnaphthalene	29.5		ug/kg	5.41	--	1
2-Chloronaphthalene	ND		ug/kg	5.41	--	1
Acenaphthylene	51.6		ug/kg	5.41	--	1
Acenaphthene	71.6		ug/kg	5.41	--	1
Fluorene	54.5		ug/kg	5.41	--	1
Phenanthrene	466		ug/kg	5.41	--	1
Anthracene	134		ug/kg	5.41	--	1
Fluoranthene	829		ug/kg	5.41	--	1
Pyrene	620		ug/kg	5.41	--	1
Benz(a)anthracene	422		ug/kg	5.41	--	1
Chrysene	430		ug/kg	5.41	--	1
Benzo(b)fluoranthene	404		ug/kg	5.41	--	1
Benzo(k)fluoranthene	320		ug/kg	5.41	--	1
Benzo(a)pyrene	403		ug/kg	5.41	--	1
Indeno(1,2,3-cd)Pyrene	298		ug/kg	5.41	--	1
Dibenz(a,h)anthracene	86.0		ug/kg	5.41	--	1
Benzo(ghi)perylene	256		ug/kg	5.41	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	46		30-130
Pyrene-d10	54		30-130
Benzo(b)fluoranthene-d12	52		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-13  
 Client ID: SL1-2 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 11:32  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 15:27  
 Analyst: GP  
 Percent Solids: 75%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	5.25		ug/kg	5.25	--	1
2-Methylnaphthalene	6.86		ug/kg	5.25	--	1
2-Chloronaphthalene	ND		ug/kg	5.25	--	1
Acenaphthylene	49.7		ug/kg	5.25	--	1
Acenaphthene	ND		ug/kg	5.25	--	1
Fluorene	ND		ug/kg	5.25	--	1
Phenanthrene	82.6		ug/kg	5.25	--	1
Anthracene	38.7		ug/kg	5.25	--	1
Fluoranthene	305		ug/kg	5.25	--	1
Pyrene	241		ug/kg	5.25	--	1
Benz(a)anthracene	186		ug/kg	5.25	--	1
Chrysene	182		ug/kg	5.25	--	1
Benzo(b)fluoranthene	166		ug/kg	5.25	--	1
Benzo(k)fluoranthene	149		ug/kg	5.25	--	1
Benzo(a)pyrene	180		ug/kg	5.25	--	1
Indeno(1,2,3-cd)Pyrene	123		ug/kg	5.25	--	1
Dibenz(a,h)anthracene	28.0		ug/kg	5.25	--	1
Benzo(ghi)perylene	114		ug/kg	5.25	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	42		30-130
Pyrene-d10	55		30-130
Benzo(b)fluoranthene-d12	55		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-14  
 Client ID: SL1-3 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 11:52  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 16:01  
 Analyst: GP  
 Percent Solids: 69%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	10.2		ug/kg	5.48	--	1
2-Methylnaphthalene	19.8		ug/kg	5.48	--	1
2-Chloronaphthalene	ND		ug/kg	5.48	--	1
Acenaphthylene	65.4		ug/kg	5.48	--	1
Acenaphthene	ND		ug/kg	5.48	--	1
Fluorene	9.66		ug/kg	5.48	--	1
Phenanthrene	153		ug/kg	5.48	--	1
Anthracene	59.4		ug/kg	5.48	--	1
Fluoranthene	386		ug/kg	5.48	--	1
Pyrene	317		ug/kg	5.48	--	1
Benz(a)anthracene	235		ug/kg	5.48	--	1
Chrysene	256		ug/kg	5.48	--	1
Benzo(b)fluoranthene	213		ug/kg	5.48	--	1
Benzo(k)fluoranthene	192		ug/kg	5.48	--	1
Benzo(a)pyrene	230		ug/kg	5.48	--	1
Indeno(1,2,3-cd)Pyrene	145		ug/kg	5.48	--	1
Dibenz(a,h)anthracene	37.6		ug/kg	5.48	--	1
Benzo(ghi)perylene	141		ug/kg	5.48	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	46		30-130
Pyrene-d10	52		30-130
Benzo(b)fluoranthene-d12	46		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-15  
**Client ID:** SL1-4 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:45  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/02/20 16:35  
**Analyst:** GP  
**Percent Solids:** 77%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 15:10  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	14.7		ug/kg	5.02	--	1
2-Methylnaphthalene	34.9		ug/kg	5.02	--	1
2-Chloronaphthalene	ND		ug/kg	5.02	--	1
Acenaphthylene	15.6		ug/kg	5.02	--	1
Acenaphthene	ND		ug/kg	5.02	--	1
Fluorene	ND		ug/kg	5.02	--	1
Phenanthrene	106		ug/kg	5.02	--	1
Anthracene	18.3		ug/kg	5.02	--	1
Fluoranthene	103		ug/kg	5.02	--	1
Pyrene	108		ug/kg	5.02	--	1
Benz(a)anthracene	62.6		ug/kg	5.02	--	1
Chrysene	98.3		ug/kg	5.02	--	1
Benzo(b)fluoranthene	72.6		ug/kg	5.02	--	1
Benzo(k)fluoranthene	47.5		ug/kg	5.02	--	1
Benzo(a)pyrene	67.2		ug/kg	5.02	--	1
Indeno(1,2,3-cd)Pyrene	50.1		ug/kg	5.02	--	1
Dibenz(a,h)anthracene	17.0		ug/kg	5.02	--	1
Benzo(ghi)perylene	59.6		ug/kg	5.02	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	43		30-130
Pyrene-d10	55		30-130
Benzo(b)fluoranthene-d12	50		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-16  
**Client ID:** SL1-5 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:50  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/02/20 17:09  
**Analyst:** GP  
**Percent Solids:** 79%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 15:10  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	22.9		ug/kg	4.95	--	1
2-Methylnaphthalene	28.6		ug/kg	4.95	--	1
2-Chloronaphthalene	6.30		ug/kg	4.95	--	1
Acenaphthylene	23.3		ug/kg	4.95	--	1
Acenaphthene	23.5		ug/kg	4.95	--	1
Fluorene	19.7		ug/kg	4.95	--	1
Phenanthrene	142		ug/kg	4.95	--	1
Anthracene	47.9		ug/kg	4.95	--	1
Fluoranthene	238		ug/kg	4.95	--	1
Pyrene	193		ug/kg	4.95	--	1
Benz(a)anthracene	128		ug/kg	4.95	--	1
Chrysene	160		ug/kg	4.95	--	1
Benzo(b)fluoranthene	167		ug/kg	4.95	--	1
Benzo(k)fluoranthene	132		ug/kg	4.95	--	1
Benzo(a)pyrene	152		ug/kg	4.95	--	1
Indeno(1,2,3-cd)Pyrene	133		ug/kg	4.95	--	1
Dibenz(a,h)anthracene	39.4		ug/kg	4.95	--	1
Benzo(ghi)perylene	127		ug/kg	4.95	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	51		30-130
Pyrene-d10	65		30-130
Benzo(b)fluoranthene-d12	67		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-17  
**Client ID:** SL1-6 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:20  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/02/20 18:50  
**Analyst:** GP  
**Percent Solids:** 83%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 15:10  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	32.0		ug/kg	4.62	--	1
2-Methylnaphthalene	20.5		ug/kg	4.62	--	1
2-Chloronaphthalene	ND		ug/kg	4.62	--	1
Acenaphthylene	9.22		ug/kg	4.62	--	1
Acenaphthene	7.42		ug/kg	4.62	--	1
Fluorene	5.52		ug/kg	4.62	--	1
Phenanthrene	86.9		ug/kg	4.62	--	1
Anthracene	25.9		ug/kg	4.62	--	1
Fluoranthene	122		ug/kg	4.62	--	1
Pyrene	96.8		ug/kg	4.62	--	1
Benz(a)anthracene	75.7		ug/kg	4.62	--	1
Chrysene	103		ug/kg	4.62	--	1
Benzo(b)fluoranthene	97.4		ug/kg	4.62	--	1
Benzo(k)fluoranthene	56.6		ug/kg	4.62	--	1
Benzo(a)pyrene	61.7		ug/kg	4.62	--	1
Indeno(1,2,3-cd)Pyrene	49.1		ug/kg	4.62	--	1
Dibenz(a,h)anthracene	13.6		ug/kg	4.62	--	1
Benzo(ghi)perylene	47.7		ug/kg	4.62	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	30		30-130
Pyrene-d10	50		30-130
Benzo(b)fluoranthene-d12	53		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-18  
 Client ID: SL1-7 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 12:05  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 19:24  
 Analyst: GP  
 Percent Solids: 81%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	16.8		ug/kg	4.81	--	1
2-Methylnaphthalene	30.1		ug/kg	4.81	--	1
2-Chloronaphthalene	ND		ug/kg	4.81	--	1
Acenaphthylene	7.70		ug/kg	4.81	--	1
Acenaphthene	5.77		ug/kg	4.81	--	1
Fluorene	6.30		ug/kg	4.81	--	1
Phenanthrene	126		ug/kg	4.81	--	1
Anthracene	14.4		ug/kg	4.81	--	1
Fluoranthene	114		ug/kg	4.81	--	1
Pyrene	101		ug/kg	4.81	--	1
Benz(a)anthracene	66.2		ug/kg	4.81	--	1
Chrysene	116		ug/kg	4.81	--	1
Benzo(b)fluoranthene	95.5		ug/kg	4.81	--	1
Benzo(k)fluoranthene	50.6		ug/kg	4.81	--	1
Benzo(a)pyrene	69.8		ug/kg	4.81	--	1
Indeno(1,2,3-cd)Pyrene	62.6		ug/kg	4.81	--	1
Dibenz(a,h)anthracene	17.8		ug/kg	4.81	--	1
Benzo(ghi)perylene	67.4		ug/kg	4.81	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	40		30-130
Pyrene-d10	60		30-130
Benzo(b)fluoranthene-d12	63		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-19  
 Client ID: SL1-8 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 12:15  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 19:58  
 Analyst: GP  
 Percent Solids: 85%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	15.4		ug/kg	4.43	--	1
2-Methylnaphthalene	27.9		ug/kg	4.43	--	1
2-Chloronaphthalene	ND		ug/kg	4.43	--	1
Acenaphthylene	6.04		ug/kg	4.43	--	1
Acenaphthene	ND		ug/kg	4.43	--	1
Fluorene	ND		ug/kg	4.43	--	1
Phenanthrene	54.2		ug/kg	4.43	--	1
Anthracene	8.86		ug/kg	4.43	--	1
Fluoranthene	41.2		ug/kg	4.43	--	1
Pyrene	37.2		ug/kg	4.43	--	1
Benz(a)anthracene	26.1		ug/kg	4.43	--	1
Chrysene	50.7		ug/kg	4.43	--	1
Benzo(b)fluoranthene	39.1		ug/kg	4.43	--	1
Benzo(k)fluoranthene	20.5		ug/kg	4.43	--	1
Benzo(a)pyrene	26.5		ug/kg	4.43	--	1
Indeno(1,2,3-cd)Pyrene	20.8		ug/kg	4.43	--	1
Dibenz(a,h)anthracene	7.83		ug/kg	4.43	--	1
Benzo(ghi)perylene	25.3		ug/kg	4.43	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	42		30-130
Pyrene-d10	53		30-130
Benzo(b)fluoranthene-d12	53		30-130



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-20  
**Client ID:** SL1-9 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:30  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/02/20 20:32  
**Analyst:** GP  
**Percent Solids:** 85%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 15:10  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	15.2		ug/kg	4.67	--	1
2-Methylnaphthalene	33.0		ug/kg	4.67	--	1
2-Chloronaphthalene	ND		ug/kg	4.67	--	1
Acenaphthylene	ND		ug/kg	4.67	--	1
Acenaphthene	ND		ug/kg	4.67	--	1
Fluorene	ND		ug/kg	4.67	--	1
Phenanthrene	82.2		ug/kg	4.67	--	1
Anthracene	7.96		ug/kg	4.67	--	1
Fluoranthene	49.5		ug/kg	4.67	--	1
Pyrene	62.7		ug/kg	4.67	--	1
Benz(a)anthracene	36.9		ug/kg	4.67	--	1
Chrysene	66.1		ug/kg	4.67	--	1
Benzo(b)fluoranthene	50.0		ug/kg	4.67	--	1
Benzo(k)fluoranthene	22.4		ug/kg	4.67	--	1
Benzo(a)pyrene	38.1		ug/kg	4.67	--	1
Indeno(1,2,3-cd)Pyrene	31.4		ug/kg	4.67	--	1
Dibenz(a,h)anthracene	14.4		ug/kg	4.67	--	1
Benzo(ghi)perylene	36.0		ug/kg	4.67	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	41		30-130
Pyrene-d10	57		30-130
Benzo(b)fluoranthene-d12	56		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-21  
 Client ID: SL1-10 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 11:24  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 21:06  
 Analyst: GP  
 Percent Solids: 64%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	15.6		ug/kg	5.93	--	1
2-Methylnaphthalene	23.6		ug/kg	5.93	--	1
2-Chloronaphthalene	ND		ug/kg	5.93	--	1
Acenaphthylene	12.8		ug/kg	5.93	--	1
Acenaphthene	ND		ug/kg	5.93	--	1
Fluorene	ND		ug/kg	5.93	--	1
Phenanthrene	86.4		ug/kg	5.93	--	1
Anthracene	18.2		ug/kg	5.93	--	1
Fluoranthene	128		ug/kg	5.93	--	1
Pyrene	104		ug/kg	5.93	--	1
Benz(a)anthracene	61.3		ug/kg	5.93	--	1
Chrysene	103		ug/kg	5.93	--	1
Benzo(b)fluoranthene	96.7		ug/kg	5.93	--	1
Benzo(k)fluoranthene	68.5		ug/kg	5.93	--	1
Benzo(a)pyrene	77.7		ug/kg	5.93	--	1
Indeno(1,2,3-cd)Pyrene	73.6		ug/kg	5.93	--	1
Dibenz(a,h)anthracene	17.9		ug/kg	5.93	--	1
Benzo(ghi)perylene	85.5		ug/kg	5.93	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	48		30-130
Pyrene-d10	60		30-130
Benzo(b)fluoranthene-d12	56		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-22  
 Client ID: SL2-1 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:05  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 21:40  
 Analyst: GP  
 Percent Solids: 63%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	40.0		ug/kg	5.98	--	1
2-Methylnaphthalene	100		ug/kg	5.98	--	1
2-Chloronaphthalene	ND		ug/kg	5.98	--	1
Acenaphthylene	140		ug/kg	5.98	--	1
Acenaphthene	16.6		ug/kg	5.98	--	1
Fluorene	19.3		ug/kg	5.98	--	1
Phenanthrene	392		ug/kg	5.98	--	1
Anthracene	134		ug/kg	5.98	--	1
Fluoranthene	1260	E	ug/kg	5.98	--	1
Pyrene	989		ug/kg	5.98	--	1
Benz(a)anthracene	669		ug/kg	5.98	--	1
Chrysene	840		ug/kg	5.98	--	1
Benzo(b)fluoranthene	846		ug/kg	5.98	--	1
Benzo(k)fluoranthene	633		ug/kg	5.98	--	1
Benzo(a)pyrene	789		ug/kg	5.98	--	1
Indeno(1,2,3-cd)Pyrene	658		ug/kg	5.98	--	1
Dibenz(a,h)anthracene	147		ug/kg	5.98	--	1
Benzo(ghi)perylene	632		ug/kg	5.98	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	50		30-130
Pyrene-d10	63		30-130
Benzo(b)fluoranthene-d12	58		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-22 D  
 Client ID: SL2-1 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:05  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/03/20 15:04  
 Analyst: GP  
 Percent Solids: 63%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Fluoranthene	1210		ug/kg	12.0	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	47		30-130
Pyrene-d10	59		30-130
Benzo(b)fluoranthene-d12	56		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-23  
 Client ID: SL2-2 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:45  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 22:14  
 Analyst: GP  
 Percent Solids: 57%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	38.3		ug/kg	6.62	--	1
2-Methylnaphthalene	75.3		ug/kg	6.62	--	1
2-Chloronaphthalene	ND		ug/kg	6.62	--	1
Acenaphthylene	31.6		ug/kg	6.62	--	1
Acenaphthene	13.3		ug/kg	6.62	--	1
Fluorene	13.9		ug/kg	6.62	--	1
Phenanthrene	186		ug/kg	6.62	--	1
Anthracene	62.8		ug/kg	6.62	--	1
Fluoranthene	418		ug/kg	6.62	--	1
Pyrene	321		ug/kg	6.62	--	1
Benz(a)anthracene	199		ug/kg	6.62	--	1
Chrysene	293		ug/kg	6.62	--	1
Benzo(b)fluoranthene	321		ug/kg	6.62	--	1
Benzo(k)fluoranthene	185		ug/kg	6.62	--	1
Benzo(a)pyrene	249		ug/kg	6.62	--	1
Indeno(1,2,3-cd)Pyrene	215		ug/kg	6.62	--	1
Dibenz(a,h)anthracene	50.6		ug/kg	6.62	--	1
Benzo(ghi)perylene	209		ug/kg	6.62	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	48		30-130
Pyrene-d10	58		30-130
Benzo(b)fluoranthene-d12	59		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-24  
 Client ID: SL2-3 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:48  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 22:48  
 Analyst: GP  
 Percent Solids: 57%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	45.3		ug/kg	6.79	--	1
2-Methylnaphthalene	68.4		ug/kg	6.79	--	1
2-Chloronaphthalene	ND		ug/kg	6.79	--	1
Acenaphthylene	19.8		ug/kg	6.79	--	1
Acenaphthene	15.6		ug/kg	6.79	--	1
Fluorene	15.7		ug/kg	6.79	--	1
Phenanthrene	220		ug/kg	6.79	--	1
Anthracene	54.0		ug/kg	6.79	--	1
Fluoranthene	241		ug/kg	6.79	--	1
Pyrene	207		ug/kg	6.79	--	1
Benz(a)anthracene	127		ug/kg	6.79	--	1
Chrysene	179		ug/kg	6.79	--	1
Benzo(b)fluoranthene	139		ug/kg	6.79	--	1
Benzo(k)fluoranthene	107		ug/kg	6.79	--	1
Benzo(a)pyrene	130		ug/kg	6.79	--	1
Indeno(1,2,3-cd)Pyrene	104		ug/kg	6.79	--	1
Dibenz(a,h)anthracene	31.9		ug/kg	6.79	--	1
Benzo(ghi)perylene	108		ug/kg	6.79	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	44		30-130
Pyrene-d10	54		30-130
Benzo(b)fluoranthene-d12	54		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-25  
**Client ID:** SL2-4 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:50  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/02/20 23:22  
**Analyst:** GP  
**Percent Solids:** 73%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 15:10  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	7.02		ug/kg	5.24	--	1
2-Methylnaphthalene	11.1		ug/kg	5.24	--	1
2-Chloronaphthalene	ND		ug/kg	5.24	--	1
Acenaphthylene	ND		ug/kg	5.24	--	1
Acenaphthene	ND		ug/kg	5.24	--	1
Fluorene	ND		ug/kg	5.24	--	1
Phenanthrene	23.9		ug/kg	5.24	--	1
Anthracene	ND		ug/kg	5.24	--	1
Fluoranthene	27.4		ug/kg	5.24	--	1
Pyrene	24.0		ug/kg	5.24	--	1
Benz(a)anthracene	15.3		ug/kg	5.24	--	1
Chrysene	24.8		ug/kg	5.24	--	1
Benzo(b)fluoranthene	22.3		ug/kg	5.24	--	1
Benzo(k)fluoranthene	14.9		ug/kg	5.24	--	1
Benzo(a)pyrene	17.5		ug/kg	5.24	--	1
Indeno(1,2,3-cd)Pyrene	16.3		ug/kg	5.24	--	1
Dibenz(a,h)anthracene	ND		ug/kg	5.24	--	1
Benzo(ghi)perylene	17.0		ug/kg	5.24	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	40		30-130
Pyrene-d10	49		30-130
Benzo(b)fluoranthene-d12	48		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-26  
 Client ID: SL2-5 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:35  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/23/20 19:41  
 Analyst: GP  
 Percent Solids: 70%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:27  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	12.7		ug/kg	5.31	--	1
2-Methylnaphthalene	16.2		ug/kg	5.31	--	1
2-Chloronaphthalene	ND		ug/kg	5.31	--	1
Acenaphthylene	14.8		ug/kg	5.31	--	1
Acenaphthene	6.51		ug/kg	5.31	--	1
Fluorene	6.52		ug/kg	5.31	--	1
Phenanthrene	48.3		ug/kg	5.31	--	1
Anthracene	14.4		ug/kg	5.31	--	1
Fluoranthene	90.4		ug/kg	5.31	--	1
Pyrene	81.1		ug/kg	5.31	--	1
Benz(a)anthracene	50.8		ug/kg	5.31	--	1
Chrysene	64.7		ug/kg	5.31	--	1
Benzo(b)fluoranthene	85.1		ug/kg	5.31	--	1
Benzo(k)fluoranthene	47.2		ug/kg	5.31	--	1
Benzo(a)pyrene	64.3		ug/kg	5.31	--	1
Indeno(1,2,3-cd)Pyrene	62.2		ug/kg	5.31	--	1
Dibenz(a,h)anthracene	17.9		ug/kg	5.31	--	1
Benzo(ghi)perylene	62.2		ug/kg	5.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	44		30-130
Pyrene-d10	56		30-130
Benzo(b)fluoranthene-d12	58		30-130



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-27  
**Client ID:** SL2-6 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:35  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/02/20 23:56  
**Analyst:** GP  
**Percent Solids:** 67%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 15:10  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	20.9		ug/kg	5.73	--	1
2-Methylnaphthalene	29.7		ug/kg	5.73	--	1
2-Chloronaphthalene	ND		ug/kg	5.73	--	1
Acenaphthylene	77.7		ug/kg	5.73	--	1
Acenaphthene	26.7		ug/kg	5.73	--	1
Fluorene	47.8		ug/kg	5.73	--	1
Phenanthrene	611		ug/kg	5.73	--	1
Anthracene	147		ug/kg	5.73	--	1
Fluoranthene	995		ug/kg	5.73	--	1
Pyrene	812		ug/kg	5.73	--	1
Benz(a)anthracene	457		ug/kg	5.73	--	1
Chrysene	501		ug/kg	5.73	--	1
Benzo(b)fluoranthene	396		ug/kg	5.73	--	1
Benzo(k)fluoranthene	283		ug/kg	5.73	--	1
Benzo(a)pyrene	389		ug/kg	5.73	--	1
Indeno(1,2,3-cd)Pyrene	274		ug/kg	5.73	--	1
Dibenz(a,h)anthracene	69.7		ug/kg	5.73	--	1
Benzo(ghi)perylene	263		ug/kg	5.73	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	35		30-130
Pyrene-d10	51		30-130
Benzo(b)fluoranthene-d12	52		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-28  
 Client ID: SL2-7 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:30  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/03/20 00:30  
 Analyst: GP  
 Percent Solids: 78%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	9.00		ug/kg	4.97	--	1
2-Methylnaphthalene	14.7		ug/kg	4.97	--	1
2-Chloronaphthalene	ND		ug/kg	4.97	--	1
Acenaphthylene	5.14		ug/kg	4.97	--	1
Acenaphthene	ND		ug/kg	4.97	--	1
Fluorene	ND		ug/kg	4.97	--	1
Phenanthrene	29.4		ug/kg	4.97	--	1
Anthracene	6.97		ug/kg	4.97	--	1
Fluoranthene	54.1		ug/kg	4.97	--	1
Pyrene	42.5		ug/kg	4.97	--	1
Benz(a)anthracene	28.6		ug/kg	4.97	--	1
Chrysene	40.3		ug/kg	4.97	--	1
Benzo(b)fluoranthene	44.3		ug/kg	4.97	--	1
Benzo(k)fluoranthene	24.9		ug/kg	4.97	--	1
Benzo(a)pyrene	34.0		ug/kg	4.97	--	1
Indeno(1,2,3-cd)Pyrene	30.1		ug/kg	4.97	--	1
Dibenz(a,h)anthracene	7.36		ug/kg	4.97	--	1
Benzo(ghi)perylene	31.2		ug/kg	4.97	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	35		30-130
Pyrene-d10	48		30-130
Benzo(b)fluoranthene-d12	52		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-29  
 Client ID: SL2-8 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:00  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/03/20 01:04  
 Analyst: GP  
 Percent Solids: 84%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	17.6		ug/kg	4.61	--	1
2-Methylnaphthalene	32.6		ug/kg	4.61	--	1
2-Chloronaphthalene	ND		ug/kg	4.61	--	1
Acenaphthylene	13.5		ug/kg	4.61	--	1
Acenaphthene	ND		ug/kg	4.61	--	1
Fluorene	ND		ug/kg	4.61	--	1
Phenanthrene	51.0		ug/kg	4.61	--	1
Anthracene	17.6		ug/kg	4.61	--	1
Fluoranthene	92.2		ug/kg	4.61	--	1
Pyrene	82.8		ug/kg	4.61	--	1
Benz(a)anthracene	55.0		ug/kg	4.61	--	1
Chrysene	71.3		ug/kg	4.61	--	1
Benzo(b)fluoranthene	74.2		ug/kg	4.61	--	1
Benzo(k)fluoranthene	46.3		ug/kg	4.61	--	1
Benzo(a)pyrene	61.2		ug/kg	4.61	--	1
Indeno(1,2,3-cd)Pyrene	54.5		ug/kg	4.61	--	1
Dibenz(a,h)anthracene	14.6		ug/kg	4.61	--	1
Benzo(ghi)perylene	57.0		ug/kg	4.61	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	48		30-130
Pyrene-d10	65		30-130
Benzo(b)fluoranthene-d12	67		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-30  
 Client ID: SL2-9 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:15  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/03/20 13:56  
 Analyst: GP  
 Percent Solids: 73%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	10.4		ug/kg	5.20	--	1
2-Methylnaphthalene	12.6		ug/kg	5.20	--	1
2-Chloronaphthalene	ND		ug/kg	5.20	--	1
Acenaphthylene	ND		ug/kg	5.20	--	1
Acenaphthene	ND		ug/kg	5.20	--	1
Fluorene	ND		ug/kg	5.20	--	1
Phenanthrene	32.1		ug/kg	5.20	--	1
Anthracene	6.67		ug/kg	5.20	--	1
Fluoranthene	61.6		ug/kg	5.20	--	1
Pyrene	49.7		ug/kg	5.20	--	1
Benz(a)anthracene	30.7		ug/kg	5.20	--	1
Chrysene	39.3		ug/kg	5.20	--	1
Benzo(b)fluoranthene	43.6		ug/kg	5.20	--	1
Benzo(k)fluoranthene	30.2		ug/kg	5.20	--	1
Benzo(a)pyrene	35.7		ug/kg	5.20	--	1
Indeno(1,2,3-cd)Pyrene	32.8		ug/kg	5.20	--	1
Dibenz(a,h)anthracene	7.21		ug/kg	5.20	--	1
Benzo(ghi)perylene	32.7		ug/kg	5.20	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	50		30-130
Pyrene-d10	57		30-130
Benzo(b)fluoranthene-d12	54		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-31  
 Client ID: SL2-10 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:11  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/03/20 14:30  
 Analyst: GP  
 Percent Solids: 72%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 15:10  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	7.45		ug/kg	5.53	--	1
2-Methylnaphthalene	7.08		ug/kg	5.53	--	1
2-Chloronaphthalene	ND		ug/kg	5.53	--	1
Acenaphthylene	ND		ug/kg	5.53	--	1
Acenaphthene	ND		ug/kg	5.53	--	1
Fluorene	ND		ug/kg	5.53	--	1
Phenanthrene	20.6		ug/kg	5.53	--	1
Anthracene	ND		ug/kg	5.53	--	1
Fluoranthene	37.2		ug/kg	5.53	--	1
Pyrene	32.3		ug/kg	5.53	--	1
Benz(a)anthracene	21.4		ug/kg	5.53	--	1
Chrysene	30.0		ug/kg	5.53	--	1
Benzo(b)fluoranthene	30.8		ug/kg	5.53	--	1
Benzo(k)fluoranthene	21.6		ug/kg	5.53	--	1
Benzo(a)pyrene	24.8		ug/kg	5.53	--	1
Indeno(1,2,3-cd)Pyrene	22.8		ug/kg	5.53	--	1
Dibenz(a,h)anthracene	5.53		ug/kg	5.53	--	1
Benzo(ghi)perylene	23.7		ug/kg	5.53	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	38		30-130
Pyrene-d10	52		30-130
Benzo(b)fluoranthene-d12	54		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-32  
 Client ID: SL3-1 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:35  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/23/20 21:23  
 Analyst: GP  
 Percent Solids: 68%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:27  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	30.7		ug/kg	5.65	--	1
2-Methylnaphthalene	48.3		ug/kg	5.65	--	1
2-Chloronaphthalene	ND		ug/kg	5.65	--	1
Acenaphthylene	68.7		ug/kg	5.65	--	1
Acenaphthene	26.2		ug/kg	5.65	--	1
Fluorene	29.4		ug/kg	5.65	--	1
Phenanthrene	616		ug/kg	5.65	--	1
Anthracene	148		ug/kg	5.65	--	1
Fluoranthene	1800	E	ug/kg	5.65	--	1
Pyrene	1420	E	ug/kg	5.65	--	1
Benz(a)anthracene	842		ug/kg	5.65	--	1
Chrysene	936		ug/kg	5.65	--	1
Benzo(b)fluoranthene	1130		ug/kg	5.65	--	1
Benzo(k)fluoranthene	621		ug/kg	5.65	--	1
Benzo(a)pyrene	898		ug/kg	5.65	--	1
Indeno(1,2,3-cd)Pyrene	762		ug/kg	5.65	--	1
Dibenz(a,h)anthracene	169		ug/kg	5.65	--	1
Benzo(ghi)perylene	726		ug/kg	5.65	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	49		30-130
Pyrene-d10	62		30-130
Benzo(b)fluoranthene-d12	63		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-32 D  
 Client ID: SL3-1 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:35  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 10:22  
 Analyst: GP  
 Percent Solids: 68%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:27  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Fluoranthene	1500		ug/kg	11.3	--	2
Pyrene	1160		ug/kg	11.3	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	41		30-130
Pyrene-d10	51		30-130
Benzo(b)fluoranthene-d12	52		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-33  
**Client ID:** SL3-2 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:30  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 11/23/20 21:56  
**Analyst:** GP  
**Percent Solids:** 64%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 16:27  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	104		ug/kg	5.96	--	1
2-Methylnaphthalene	122		ug/kg	5.96	--	1
2-Chloronaphthalene	ND		ug/kg	5.96	--	1
Acenaphthylene	94.1		ug/kg	5.96	--	1
Acenaphthene	170		ug/kg	5.96	--	1
Fluorene	130		ug/kg	5.96	--	1
Phenanthrene	1340	E	ug/kg	5.96	--	1
Anthracene	336		ug/kg	5.96	--	1
Fluoranthene	2780	E	ug/kg	5.96	--	1
Pyrene	2060	E	ug/kg	5.96	--	1
Benz(a)anthracene	1310	E	ug/kg	5.96	--	1
Chrysene	1390	E	ug/kg	5.96	--	1
Benzo(b)fluoranthene	1390	E	ug/kg	5.96	--	1
Benzo(k)fluoranthene	1090		ug/kg	5.96	--	1
Benzo(a)pyrene	1280	E	ug/kg	5.96	--	1
Indeno(1,2,3-cd)Pyrene	1010		ug/kg	5.96	--	1
Dibenz(a,h)anthracene	248		ug/kg	5.96	--	1
Benzo(ghi)perylene	969		ug/kg	5.96	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	54		30-130
Pyrene-d10	66		30-130
Benzo(b)fluoranthene-d12	65		30-130



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-33 D  
 Client ID: SL3-2 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 15:30  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/02/20 14:19  
 Analyst: GP  
 Percent Solids: 64%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:27  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Phenanthrene	1200		ug/kg	29.8	--	5
Fluoranthene	2460		ug/kg	29.8	--	5
Pyrene	1800		ug/kg	29.8	--	5
Benz(a)anthracene	1050		ug/kg	29.8	--	5
Chrysene	1290		ug/kg	29.8	--	5
Benzo(b)fluoranthene	1270		ug/kg	29.8	--	5
Benzo(a)pyrene	1090		ug/kg	29.8	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	50		30-130
Pyrene-d10	57		30-130
Benzo(b)fluoranthene-d12	58		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-34  
**Client ID:** SL3-3 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:00  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 11/24/20 12:28  
**Analyst:** GP  
**Percent Solids:** 60%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 16:27  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	29.7		ug/kg	6.29	--	1
2-Methylnaphthalene	60.7		ug/kg	6.29	--	1
2-Chloronaphthalene	ND		ug/kg	6.29	--	1
Acenaphthylene	31.0		ug/kg	6.29	--	1
Acenaphthene	11.9		ug/kg	6.29	--	1
Fluorene	16.0		ug/kg	6.29	--	1
Phenanthrene	271		ug/kg	6.29	--	1
Anthracene	55.0		ug/kg	6.29	--	1
Fluoranthene	597		ug/kg	6.29	--	1
Pyrene	464		ug/kg	6.29	--	1
Benz(a)anthracene	318		ug/kg	6.29	--	1
Chrysene	321		ug/kg	6.29	--	1
Benzo(b)fluoranthene	392		ug/kg	6.29	--	1
Benzo(k)fluoranthene	242		ug/kg	6.29	--	1
Benzo(a)pyrene	280		ug/kg	6.29	--	1
Indeno(1,2,3-cd)Pyrene	231		ug/kg	6.29	--	1
Dibenz(a,h)anthracene	58.7		ug/kg	6.29	--	1
Benzo(ghi)perylene	245		ug/kg	6.29	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	60		30-130
Pyrene-d10	69		30-130
Benzo(b)fluoranthene-d12	69		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-35  
 Client ID: SL3-4 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:55  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/24/20 13:01  
 Analyst: GP  
 Percent Solids: 66%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:27  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	17.0		ug/kg	5.68	--	1
2-Methylnaphthalene	33.2		ug/kg	5.68	--	1
2-Chloronaphthalene	ND		ug/kg	5.68	--	1
Acenaphthylene	17.4		ug/kg	5.68	--	1
Acenaphthene	10.5		ug/kg	5.68	--	1
Fluorene	18.6		ug/kg	5.68	--	1
Phenanthrene	182		ug/kg	5.68	--	1
Anthracene	46.4		ug/kg	5.68	--	1
Fluoranthene	372		ug/kg	5.68	--	1
Pyrene	275		ug/kg	5.68	--	1
Benz(a)anthracene	183		ug/kg	5.68	--	1
Chrysene	176		ug/kg	5.68	--	1
Benzo(b)fluoranthene	193		ug/kg	5.68	--	1
Benzo(k)fluoranthene	102		ug/kg	5.68	--	1
Benzo(a)pyrene	132		ug/kg	5.68	--	1
Indeno(1,2,3-cd)Pyrene	98.9		ug/kg	5.68	--	1
Dibenz(a,h)anthracene	26.0		ug/kg	5.68	--	1
Benzo(ghi)perylene	101		ug/kg	5.68	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	54		30-130
Pyrene-d10	66		30-130
Benzo(b)fluoranthene-d12	64		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-36  
 Client ID: SL3-5 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:51  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/24/20 13:35  
 Analyst: GP  
 Percent Solids: 71%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:27  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	6.62		ug/kg	5.51	--	1
2-Methylnaphthalene	11.0		ug/kg	5.51	--	1
2-Chloronaphthalene	ND		ug/kg	5.51	--	1
Acenaphthylene	ND		ug/kg	5.51	--	1
Acenaphthene	ND		ug/kg	5.51	--	1
Fluorene	ND		ug/kg	5.51	--	1
Phenanthrene	25.8		ug/kg	5.51	--	1
Anthracene	6.94		ug/kg	5.51	--	1
Fluoranthene	62.5		ug/kg	5.51	--	1
Pyrene	48.9		ug/kg	5.51	--	1
Benz(a)anthracene	37.3		ug/kg	5.51	--	1
Chrysene	42.8		ug/kg	5.51	--	1
Benzo(b)fluoranthene	48.2		ug/kg	5.51	--	1
Benzo(k)fluoranthene	32.8		ug/kg	5.51	--	1
Benzo(a)pyrene	33.6		ug/kg	5.51	--	1
Indeno(1,2,3-cd)Pyrene	29.2		ug/kg	5.51	--	1
Dibenz(a,h)anthracene	6.90		ug/kg	5.51	--	1
Benzo(ghi)perylene	30.4		ug/kg	5.51	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	48		30-130
Pyrene-d10	63		30-130
Benzo(b)fluoranthene-d12	64		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-37  
 Client ID: SL3-6 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:40  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/24/20 14:09  
 Analyst: GP  
 Percent Solids: 55%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:27  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	29.2		ug/kg	6.83	--	1
2-Methylnaphthalene	50.6		ug/kg	6.83	--	1
2-Chloronaphthalene	ND		ug/kg	6.83	--	1
Acenaphthylene	34.3		ug/kg	6.83	--	1
Acenaphthene	10.1		ug/kg	6.83	--	1
Fluorene	18.4		ug/kg	6.83	--	1
Phenanthrene	244		ug/kg	6.83	--	1
Anthracene	46.5		ug/kg	6.83	--	1
Fluoranthene	502		ug/kg	6.83	--	1
Pyrene	373		ug/kg	6.83	--	1
Benz(a)anthracene	251		ug/kg	6.83	--	1
Chrysene	266		ug/kg	6.83	--	1
Benzo(b)fluoranthene	327		ug/kg	6.83	--	1
Benzo(k)fluoranthene	178		ug/kg	6.83	--	1
Benzo(a)pyrene	220		ug/kg	6.83	--	1
Indeno(1,2,3-cd)Pyrene	193		ug/kg	6.83	--	1
Dibenz(a,h)anthracene	49.7		ug/kg	6.83	--	1
Benzo(ghi)perylene	197		ug/kg	6.83	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	51		30-130
Pyrene-d10	68		30-130
Benzo(b)fluoranthene-d12	69		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-38  
**Client ID:** SL3-7 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:10  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 11/24/20 15:51  
**Analyst:** GP  
**Percent Solids:** 59%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 16:27  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	15.6		ug/kg	6.33	--	1
2-Methylnaphthalene	23.3		ug/kg	6.33	--	1
2-Chloronaphthalene	ND		ug/kg	6.33	--	1
Acenaphthylene	15.4		ug/kg	6.33	--	1
Acenaphthene	6.75		ug/kg	6.33	--	1
Fluorene	8.25		ug/kg	6.33	--	1
Phenanthrene	107		ug/kg	6.33	--	1
Anthracene	27.2		ug/kg	6.33	--	1
Fluoranthene	262		ug/kg	6.33	--	1
Pyrene	201		ug/kg	6.33	--	1
Benz(a)anthracene	133		ug/kg	6.33	--	1
Chrysene	143		ug/kg	6.33	--	1
Benzo(b)fluoranthene	189		ug/kg	6.33	--	1
Benzo(k)fluoranthene	116		ug/kg	6.33	--	1
Benzo(a)pyrene	131		ug/kg	6.33	--	1
Indeno(1,2,3-cd)Pyrene	115		ug/kg	6.33	--	1
Dibenz(a,h)anthracene	25.5		ug/kg	6.33	--	1
Benzo(ghi)perylene	119		ug/kg	6.33	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	46		30-130
Pyrene-d10	59		30-130
Benzo(b)fluoranthene-d12	61		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-39  
**Client ID:** SL3-8 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:33  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 11/24/20 16:25  
**Analyst:** GP  
**Percent Solids:** 62%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 16:27  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	18.8		ug/kg	6.04	--	1
2-Methylnaphthalene	33.9		ug/kg	6.04	--	1
2-Chloronaphthalene	ND		ug/kg	6.04	--	1
Acenaphthylene	30.6		ug/kg	6.04	--	1
Acenaphthene	9.31		ug/kg	6.04	--	1
Fluorene	10.7		ug/kg	6.04	--	1
Phenanthrene	183		ug/kg	6.04	--	1
Anthracene	51.5		ug/kg	6.04	--	1
Fluoranthene	393		ug/kg	6.04	--	1
Pyrene	314		ug/kg	6.04	--	1
Benz(a)anthracene	228		ug/kg	6.04	--	1
Chrysene	237		ug/kg	6.04	--	1
Benzo(b)fluoranthene	338		ug/kg	6.04	--	1
Benzo(k)fluoranthene	176		ug/kg	6.04	--	1
Benzo(a)pyrene	229		ug/kg	6.04	--	1
Indeno(1,2,3-cd)Pyrene	198		ug/kg	6.04	--	1
Dibenz(a,h)anthracene	47.1		ug/kg	6.04	--	1
Benzo(ghi)perylene	194		ug/kg	6.04	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	40		30-130
Pyrene-d10	71		30-130
Benzo(b)fluoranthene-d12	74		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-40  
**Client ID:** SL3-9 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:11  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Sediment  
**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 11/24/20 16:59  
**Analyst:** GP  
**Percent Solids:** 68%

**Extraction Method:** EPA 3570  
**Extraction Date:** 11/16/20 16:27  
**Cleanup Method:** EPA 3630  
**Cleanup Date:** 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	45.4		ug/kg	5.61	--	1
2-Methylnaphthalene	60.4		ug/kg	5.61	--	1
2-Chloronaphthalene	ND		ug/kg	5.61	--	1
Acenaphthylene	14.2		ug/kg	5.61	--	1
Acenaphthene	15.2		ug/kg	5.61	--	1
Fluorene	15.5		ug/kg	5.61	--	1
Phenanthrene	226		ug/kg	5.61	--	1
Anthracene	33.6		ug/kg	5.61	--	1
Fluoranthene	435		ug/kg	5.61	--	1
Pyrene	347		ug/kg	5.61	--	1
Benz(a)anthracene	178		ug/kg	5.61	--	1
Chrysene	232		ug/kg	5.61	--	1
Benzo(b)fluoranthene	198		ug/kg	5.61	--	1
Benzo(k)fluoranthene	140		ug/kg	5.61	--	1
Benzo(a)pyrene	139		ug/kg	5.61	--	1
Indeno(1,2,3-cd)Pyrene	110		ug/kg	5.61	--	1
Dibenz(a,h)anthracene	30.3		ug/kg	5.61	--	1
Benzo(ghi)perylene	109		ug/kg	5.61	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	57		30-130
Pyrene-d10	69		30-130
Benzo(b)fluoranthene-d12	71		30-130



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-41  
 Client ID: SL3-10 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:09  
 Date Received: 11/13/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/24/20 17:33  
 Analyst: GP  
 Percent Solids: 79%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:28  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	10.9		ug/kg	4.82	--	1
2-Methylnaphthalene	14.6		ug/kg	4.82	--	1
2-Chloronaphthalene	ND		ug/kg	4.82	--	1
Acenaphthylene	6.37		ug/kg	4.82	--	1
Acenaphthene	ND		ug/kg	4.82	--	1
Fluorene	ND		ug/kg	4.82	--	1
Phenanthrene	49.7		ug/kg	4.82	--	1
Anthracene	13.6		ug/kg	4.82	--	1
Fluoranthene	83.3		ug/kg	4.82	--	1
Pyrene	68.6		ug/kg	4.82	--	1
Benz(a)anthracene	47.2		ug/kg	4.82	--	1
Chrysene	55.4		ug/kg	4.82	--	1
Benzo(b)fluoranthene	68.6		ug/kg	4.82	--	1
Benzo(k)fluoranthene	40.4		ug/kg	4.82	--	1
Benzo(a)pyrene	44.4		ug/kg	4.82	--	1
Indeno(1,2,3-cd)Pyrene	40.8		ug/kg	4.82	--	1
Dibenz(a,h)anthracene	10.4		ug/kg	4.82	--	1
Benzo(ghi)perylene	39.9		ug/kg	4.82	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	43		30-130
Pyrene-d10	67		30-130
Benzo(b)fluoranthene-d12	69		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-42  
 Client ID: DUP-1  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 12:06  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/24/20 18:06  
 Analyst: GP  
 Percent Solids: 85%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:28  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	28.7		ug/kg	4.42	--	1
2-Methylnaphthalene	61.4		ug/kg	4.42	--	1
2-Chloronaphthalene	ND		ug/kg	4.42	--	1
Acenaphthylene	9.47		ug/kg	4.42	--	1
Acenaphthene	9.37		ug/kg	4.42	--	1
Fluorene	6.14		ug/kg	4.42	--	1
Phenanthrene	223		ug/kg	4.42	--	1
Anthracene	26.8		ug/kg	4.42	--	1
Fluoranthene	268		ug/kg	4.42	--	1
Pyrene	251		ug/kg	4.42	--	1
Benz(a)anthracene	146		ug/kg	4.42	--	1
Chrysene	157		ug/kg	4.42	--	1
Benzo(b)fluoranthene	152		ug/kg	4.42	--	1
Benzo(k)fluoranthene	99.4		ug/kg	4.42	--	1
Benzo(a)pyrene	122		ug/kg	4.42	--	1
Indeno(1,2,3-cd)Pyrene	99.6		ug/kg	4.42	--	1
Dibenz(a,h)anthracene	25.3		ug/kg	4.42	--	1
Benzo(ghi)perylene	101		ug/kg	4.42	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	50		30-130
Pyrene-d10	84		30-130
Benzo(b)fluoranthene-d12	85		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-43  
 Client ID: DUP-2  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:51  
 Date Received: 11/13/20  
 Field Prep: Not Specified

**Sample Depth:**

Matrix: Sediment  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 11/24/20 18:40  
 Analyst: GP  
 Percent Solids: 71%

Extraction Method: EPA 3570  
 Extraction Date: 11/16/20 16:28  
 Cleanup Method: EPA 3630  
 Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP PAHs by GC/MS-SIM - Mansfield Lab</b>						
Naphthalene	ND		ug/kg	5.30	--	1
2-Methylnaphthalene	7.44		ug/kg	5.30	--	1
2-Chloronaphthalene	ND		ug/kg	5.30	--	1
Acenaphthylene	8.52		ug/kg	5.30	--	1
Acenaphthene	ND		ug/kg	5.30	--	1
Fluorene	ND		ug/kg	5.30	--	1
Phenanthrene	26.9		ug/kg	5.30	--	1
Anthracene	7.52		ug/kg	5.30	--	1
Fluoranthene	58.5		ug/kg	5.30	--	1
Pyrene	49.1		ug/kg	5.30	--	1
Benz(a)anthracene	33.2		ug/kg	5.30	--	1
Chrysene	37.9		ug/kg	5.30	--	1
Benzo(b)fluoranthene	51.2		ug/kg	5.30	--	1
Benzo(k)fluoranthene	27.4		ug/kg	5.30	--	1
Benzo(a)pyrene	35.1		ug/kg	5.30	--	1
Indeno(1,2,3-cd)Pyrene	32.4		ug/kg	5.30	--	1
Dibenz(a,h)anthracene	8.25		ug/kg	5.30	--	1
Benzo(ghi)perylene	33.3		ug/kg	5.30	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	47		30-130
Pyrene-d10	73		30-130
Benzo(b)fluoranthene-d12	76		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

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

Analytical Method: 97,8270D-SIM  
Analytical Date: 12/02/20 11:29  
Analyst: GP

Extraction Method: EPA 3570  
Extraction Date: 11/16/20 15:10  
Cleanup Method: EPA 3630  
Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL
MCP PAHs by GC/MS-SIM - Mansfield Lab for sample(s): 12-25,27-31 Batch: WG1434849-1					
Naphthalene	ND		ug/kg	4.00	--
2-Methylnaphthalene	ND		ug/kg	4.00	--
2-Chloronaphthalene	ND		ug/kg	4.00	--
Acenaphthylene	ND		ug/kg	4.00	--
Acenaphthene	ND		ug/kg	4.00	--
Fluorene	ND		ug/kg	4.00	--
Phenanthrene	ND		ug/kg	4.00	--
Anthracene	ND		ug/kg	4.00	--
Fluoranthene	ND		ug/kg	4.00	--
Pyrene	ND		ug/kg	4.00	--
Benz(a)anthracene	ND		ug/kg	4.00	--
Chrysene	ND		ug/kg	4.00	--
Benzo(b)fluoranthene	ND		ug/kg	4.00	--
Benzo(k)fluoranthene	ND		ug/kg	4.00	--
Benzo(a)pyrene	ND		ug/kg	4.00	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	4.00	--
Dibenz(a,h)anthracene	ND		ug/kg	4.00	--
Benzo(ghi)perylene	ND		ug/kg	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	37		30-130
Pyrene-d10	54		30-130
Benzo(b)fluoranthene-d12	60		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

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

Analytical Method: 97,8270D-SIM  
Analytical Date: 11/23/20 12:18  
Analyst: GP

Extraction Method: EPA 3570  
Extraction Date: 11/16/20 16:27  
Cleanup Method: EPA 3630  
Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL
MCP PAHs by GC/MS-SIM - Mansfield Lab for sample(s): 26,32-43 Batch: WG1434890-1					
Naphthalene	ND		ug/kg	4.00	--
2-Methylnaphthalene	ND		ug/kg	4.00	--
2-Chloronaphthalene	ND		ug/kg	4.00	--
Acenaphthylene	ND		ug/kg	4.00	--
Acenaphthene	ND		ug/kg	4.00	--
Fluorene	ND		ug/kg	4.00	--
Phenanthrene	ND		ug/kg	4.00	--
Anthracene	ND		ug/kg	4.00	--
Fluoranthene	ND		ug/kg	4.00	--
Pyrene	ND		ug/kg	4.00	--
Benz(a)anthracene	ND		ug/kg	4.00	--
Chrysene	ND		ug/kg	4.00	--
Benzo(b)fluoranthene	ND		ug/kg	4.00	--
Benzo(k)fluoranthene	ND		ug/kg	4.00	--
Benzo(a)pyrene	ND		ug/kg	4.00	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	4.00	--
Dibenz(a,h)anthracene	ND		ug/kg	4.00	--
Benzo(ghi)perylene	ND		ug/kg	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	50		30-130
Pyrene-d10	74		30-130
Benzo(b)fluoranthene-d12	81		30-130

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

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

Analytical Method: 97,8270D-SIM  
Analytical Date: 12/01/20 10:33  
Analyst: GP

Extraction Method: EPA 3510C  
Extraction Date: 11/19/20 15:00

Parameter	Result	Qualifier	Units	RL	MDL
MCP PAHs by GC/MS-SIM - Mansfield Lab for sample(s): 01-11 Batch: WG1436264-1					
Naphthalene	ND		ng/l	10.0	--
2-Methylnaphthalene	ND		ng/l	10.0	--
2-Chloronaphthalene	ND		ng/l	10.0	--
Acenaphthylene	ND		ng/l	10.0	--
Acenaphthene	ND		ng/l	10.0	--
Fluorene	ND		ng/l	10.0	--
Phenanthrene	ND		ng/l	10.0	--
Anthracene	ND		ng/l	10.0	--
Fluoranthene	ND		ng/l	10.0	--
Pyrene	ND		ng/l	10.0	--
Benz(a)anthracene	ND		ng/l	10.0	--
Chrysene	ND		ng/l	10.0	--
Benzo(b)fluoranthene	ND		ng/l	10.0	--
Benzo(k)fluoranthene	ND		ng/l	10.0	--
Benzo(a)pyrene	ND		ng/l	10.0	--
Indeno(1,2,3-cd)Pyrene	ND		ng/l	10.0	--
Dibenz(a,h)anthracene	ND		ng/l	10.0	--
Benzo(ghi)perylene	ND		ng/l	10.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	57		30-130
Pyrene-d10	71		30-130
Benzo(b)fluoranthene-d12	82		30-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<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 PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 12-25,27-31 Batch: WG1434849-2 WG1434849-3								
Naphthalene	46		45		40-140	2		30
2-Methylnaphthalene	52		51		40-140	2		30
2-Chloronaphthalene	48		47		40-140	2		30
Acenaphthylene	50		52		40-140	4		30
Acenaphthene	51		51		40-140	0		30
Fluorene	55		56		40-140	2		30
Phenanthrene	53		55		40-140	4		30
Anthracene	63		66		40-140	5		30
Fluoranthene	63		66		40-140	5		30
Pyrene	56		58		40-140	4		30
Benz(a)anthracene	62		65		40-140	5		30
Chrysene	60		63		40-140	5		30
Benzo(b)fluoranthene	66		71		40-140	7		30
Benzo(k)fluoranthene	56		58		40-140	4		30
Benzo(a)pyrene	58		59		40-140	2		30
Indeno(1,2,3-cd)Pyrene	72		76		40-140	5		30
Dibenz(a,h)anthracene	68		72		40-140	6		30
Benzo(ghi)perylene	70		73		40-140	4		30

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

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
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 12-25,27-31 Batch: WG1434849-2 WG1434849-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Methylnaphthalene-d10	50		49		30-130
Pyrene-d10	63		64		30-130
Benzo(b)fluoranthene-d12	65		68		30-130



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 26,32-43 Batch: WG1434890-2 WG1434890-3								
Naphthalene	39	Q	49		40-140	31	Q	30
2-Methylnaphthalene	46		56		40-140	29		30
2-Chloronaphthalene	40		48		40-140	26		30
Acenaphthylene	46		52		40-140	26		30
Acenaphthene	47		53		40-140	23		30
Fluorene	52		57		40-140	19		30
Phenanthrene	48		58		40-140	13		30
Anthracene	56		66		40-140	15		30
Fluoranthene	56		69		40-140	12		30
Pyrene	49		60		40-140	12		30
Benz(a)anthracene	56		70		40-140	12		30
Chrysene	53		68		40-140	13		30
Benzo(b)fluoranthene	62		76		40-140	14		30
Benzo(k)fluoranthene	48		66		40-140	10		30
Benzo(a)pyrene	50		65		40-140	17		30
Indeno(1,2,3-cd)Pyrene	66		81		40-140	13		30
Dibenz(a,h)anthracene	61		78		40-140	14		30
Benzo(ghi)perylene	61		80		40-140	15		30

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20

<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>
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MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 26,32-43 Batch: WG1434890-2 WG1434890-3

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
2-Methylnaphthalene-d10	45		55		30-130
Pyrene-d10	58		69		30-130
Benzo(b)fluoranthene-d12	61		77		30-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR

**Lab Number:** L2050541

**Project Number:** 414883

**Report Date:** 12/04/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 01-11 Batch: WG1436264-2 WG1436264-3								
Naphthalene	58		60		40-140	3		20
2-Methylnaphthalene	64		68		40-140	6		20
2-Chloronaphthalene	58		60		40-140	3		20
Acenaphthylene	63		65		40-140	3		20
Acenaphthene	60		62		40-140	3		20
Fluorene	64		66		40-140	3		20
Phenanthrene	61		61		40-140	0		20
Anthracene	68		68		40-140	0		20
Fluoranthene	69		72		40-140	4		20
Pyrene	60		60		40-140	0		20
Benz(a)anthracene	66		68		40-140	3		20
Chrysene	66		68		40-140	3		20
Benzo(b)fluoranthene	68		72		40-140	6		20
Benzo(k)fluoranthene	66		65		40-140	2		20
Benzo(a)pyrene	63		63		40-140	0		20
Indeno(1,2,3-cd)Pyrene	83		82		40-140	1		20
Dibenz(a,h)anthracene	74		75		40-140	1		20
Benzo(ghi)perylene	75		78		40-140	4		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 01-11 Batch: WG1436264-2 WG1436264-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Methylnaphthalene-d10	69		67		30-130
Pyrene-d10	70		69		30-130
Benzo(b)fluoranthene-d12	75		76		30-130

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 12-25,27-31 QC Batch ID: WG1434849-4 WG1434849-5 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')												
Naphthalene	22.9	619	272	40		257	37	Q	40-140	6		30
2-Methylnaphthalene	28.6	619	335	50		305	44		40-140	9		30
2-Chloronaphthalene	6.30	619	275	43		258	40		40-140	6		30
Acenaphthylene	23.3	619	320	48		304	45		40-140	5		30
Acenaphthene	23.5	619	322	48		288	42		40-140	11		30
Fluorene	19.7	619	340	52		310	46		40-140	9		30
Phenanthrene	142	619	412	44		382	38	Q	40-140	8		30
Anthracene	47.9	619	386	55		371	52		40-140	4		30
Fluoranthene	238	619	519	45		520	45		40-140	0		30
Pyrene	193	619	464	44		470	44		40-140	1		30
Benz(a)anthracene	128	619	451	52		485	57		40-140	7		30
Chrysene	160	619	499	55		510	56		40-140	2		30
Benzo(b)fluoranthene	167	619	525	58		526	57		40-140	0		30
Benzo(k)fluoranthene	132	619	431	48		472	54		40-140	9		30
Benzo(a)pyrene	152	619	444	47		470	51		40-140	6		30
Indeno(1,2,3-cd)Pyrene	133	619	518	62		554	67		40-140	7		30
Dibenz(a,h)anthracene	39.4	619	445	66		458	67		40-140	3		30
Benzo(ghi)perylene	127	619	504	61		519	63		40-140	3		30

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
2-Methylnaphthalene-d10	48		43		30-130
Benzo(b)fluoranthene-d12	63		64		30-130

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 12-25,27-31 QC Batch ID: WG1434849-4 WG1434849-5 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')												

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
Pyrene-d10	62		62		30-130

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 26,32-43 QC Batch ID: WG1434890-4 WG1434890-5 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')												
Naphthalene	12.7	705	311	42		313	46		40-140	14		30
2-Methylnaphthalene	16.2	705	376	51		359	52		40-140	8		30
2-Chloronaphthalene	ND	705	325	46		297	45		40-140	4		30
Acenaphthylene	14.8	705	365	50		338	49		40-140	2		30
Acenaphthene	6.51	705	354	49		331	50		40-140	0		30
Fluorene	6.52	705	389	54		349	52		40-140	4		30
Phenanthrene	48.3	705	440	56		412	56		40-140	10		30
Anthracene	14.4	705	416	57		414	61		40-140	4		30
Fluoranthene	90.4	705	545	65		517	65		40-140	11		30
Pyrene	81.1	705	471	55		452	57		40-140	9		30
Benz(a)anthracene	50.8	705	508	65		498	68		40-140	6		30
Chrysene	64.7	705	424	51		467	61		40-140	4		30
Benzo(b)fluoranthene	85.1	705	566	68		561	73		40-140	3		30
Benzo(k)fluoranthene	47.2	705	380	47		434	59		40-140	3		30
Benzo(a)pyrene	64.3	705	415	50		458	60		40-140	0		30
Indeno(1,2,3-cd)Pyrene	62.2	705	542	68		583	80		40-140	3		30
Dibenz(a,h)anthracene	17.9	705	471	64		493	73		40-140	1		30
Benzo(ghi)perylene	62.2	705	484	60		537	73		40-140	0		30

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
2-Methylnaphthalene-d10	52		52		30-130
Benzo(b)fluoranthene-d12	62		69		30-130

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 26,32-43 QC Batch ID: WG1434890-4 WG1434890-5 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')												

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
Pyrene-d10	61		66		30-130



## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
MCP PAHs by GC/MS-SIM - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1436264-4 WG1436264-5 QC Sample: L2050541-09 Client ID: SW-9												
Naphthalene	ND	1920	982	51		1090	57		40-140	10		20
2-Methylnaphthalene	ND	1920	1080	56		1190	62		40-140	10		20
2-Chloronaphthalene	ND	1920	933	48		1030	54		40-140	10		20
Acenaphthylene	ND	1920	1080	56		1210	63		40-140	11		20
Acenaphthene	ND	1920	1060	55		1200	62		40-140	12		20
Fluorene	ND	1920	1140	59		1260	66		40-140	10		20
Phenanthrene	ND	1920	1120	58		1220	63		40-140	9		20
Anthracene	ND	1920	1260	66		1380	72		40-140	9		20
Fluoranthene	102	1920	1290	62		1430	69		40-140	10		20
Pyrene	85.3	1920	1200	58		1310	64		40-140	9		20
Benz(a)anthracene	57.4	1920	1280	64		1340	67		40-140	5		20
Chrysene	82.9	1920	1280	62		1360	66		40-140	6		20
Benzo(b)fluoranthene	80.5	1920	1430	70		1370	67		40-140	4		20
Benzo(k)fluoranthene	59.3	1920	1180	58		1300	64		40-140	10		20
Benzo(a)pyrene	67.3	1920	1200	59		1260	62		40-140	5		20
Indeno(1,2,3-cd)Pyrene	53.2	1920	1510	76		1480	74		40-140	2		20
Dibenz(a,h)anthracene	ND	1920	1390	72		1400	73		40-140	1		20
Benzo(ghi)perylene	55.6	1920	1440	72		1470	74		40-140	2		20

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
2-Methylnaphthalene-d10	60		68		30-130
Benzo(b)fluoranthene-d12	69		70		30-130
Pyrene-d10	70		74		30-130

# PETROLEUM HYDROCARBONS

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-12  
 Client ID: SL1-1 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:00  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 05:24  
 Analyst: MEO  
 Percent Solids: 74%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:06  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	8.95	--	1
C19-C36 Aliphatics	ND		mg/kg	8.95	--	1
C11-C22 Aromatics	15.0		mg/kg	8.95	--	1
C11-C22 Aromatics, Adjusted	14.5		mg/kg	8.95	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	55		40-140
o-Terphenyl	65		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	79		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-13  
**Client ID:** SL1-2 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:32  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/21/20 13:31  
**Analyst:** LL  
**Percent Solids:** 75%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:06  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	8.58	--	1
C19-C36 Aliphatics	ND		mg/kg	8.58	--	1
C11-C22 Aromatics	ND		mg/kg	8.58	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.58	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	48		40-140
o-Terphenyl	44		40-140
2-Fluorobiphenyl	90		40-140
2-Bromonaphthalene	95		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-14  
 Client ID: SL1-3 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 11:52  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 06:12  
 Analyst: MEO  
 Percent Solids: 69%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:06  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	9.38	--	1
C19-C36 Aliphatics	ND		mg/kg	9.38	--	1
C11-C22 Aromatics	17.0		mg/kg	9.38	--	1
C11-C22 Aromatics, Adjusted	14.4		mg/kg	9.38	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	64		40-140
o-Terphenyl	64		40-140
2-Fluorobiphenyl	82		40-140
2-Bromonaphthalene	82		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-15  
**Client ID:** SL1-4 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:45  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 06:36  
**Analyst:** MEO  
**Percent Solids:** 77%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:06  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	8.52	--	1
C19-C36 Aliphatics	ND		mg/kg	8.52	--	1
C11-C22 Aromatics	15.9		mg/kg	8.52	--	1
C11-C22 Aromatics, Adjusted	14.0		mg/kg	8.52	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	66		40-140
o-Terphenyl	67		40-140
2-Fluorobiphenyl	82		40-140
2-Bromonaphthalene	81		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-16  
 Client ID: SL1-5 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 11:50  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 04:11  
 Analyst: MEO  
 Percent Solids: 79%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:06  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	8.16	--	1
C19-C36 Aliphatics	ND		mg/kg	8.16	--	1
C11-C22 Aromatics	ND		mg/kg	8.16	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.16	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	65		40-140
o-Terphenyl	60		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	79		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-17  
 Client ID: SL1-6 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 12:20  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 07:00  
 Analyst: MEO  
 Percent Solids: 83%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:06  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	7.90	--	1
C19-C36 Aliphatics	ND		mg/kg	7.90	--	1
C11-C22 Aromatics	ND		mg/kg	7.90	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.90	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	45		40-140
o-Terphenyl	44		40-140
2-Fluorobiphenyl	81		40-140
2-Bromonaphthalene	82		40-140



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-18  
**Client ID:** SL1-7 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:05  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 07:25  
**Analyst:** MEO  
**Percent Solids:** 81%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:06  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	8.11	--	1
C19-C36 Aliphatics	ND		mg/kg	8.11	--	1
C11-C22 Aromatics	10.0		mg/kg	8.11	--	1
C11-C22 Aromatics, Adjusted	9.62		mg/kg	8.11	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	60		40-140
o-Terphenyl	59		40-140
2-Fluorobiphenyl	81		40-140
2-Bromonaphthalene	79		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-19  
**Client ID:** SL1-8 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:15  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 07:49  
**Analyst:** MEO  
**Percent Solids:** 85%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:06  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	7.50	--	1
C19-C36 Aliphatics	ND		mg/kg	7.50	--	1
C11-C22 Aromatics	ND		mg/kg	7.50	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.50	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	68		40-140
o-Terphenyl	67		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	80		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-20  
**Client ID:** SL1-9 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:30  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 08:13  
**Analyst:** MEO  
**Percent Solids:** 85%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:07  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	7.57	--	1
C19-C36 Aliphatics	ND		mg/kg	7.57	--	1
C11-C22 Aromatics	ND		mg/kg	7.57	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.57	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	62		40-140
o-Terphenyl	61		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	81		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-21  
 Client ID: SL1-10 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 11:24  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 08:37  
 Analyst: MEO  
 Percent Solids: 64%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:07  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	10.1	--	1
C19-C36 Aliphatics	ND		mg/kg	10.1	--	1
C11-C22 Aromatics	110		mg/kg	10.1	--	1
C11-C22 Aromatics, Adjusted	62.2		mg/kg	10.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	63		40-140
o-Terphenyl	62		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	78		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-22  
 Client ID: SL2-1 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:05  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 09:01  
 Analyst: MEO  
 Percent Solids: 63%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:07  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	10.4	--	1
C19-C36 Aliphatics	27.6		mg/kg	10.4	--	1
C11-C22 Aromatics	39.0		mg/kg	10.4	--	1
C11-C22 Aromatics, Adjusted	34.1		mg/kg	10.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	61		40-140
o-Terphenyl	60		40-140
2-Fluorobiphenyl	75		40-140
2-Bromonaphthalene	74		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-23  
**Client ID:** SL2-2 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:45  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 09:25  
**Analyst:** MEO  
**Percent Solids:** 57%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:07  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	11.6	--	1
C19-C36 Aliphatics	14.8		mg/kg	11.6	--	1
C11-C22 Aromatics	41.6		mg/kg	11.6	--	1
C11-C22 Aromatics, Adjusted	30.9		mg/kg	11.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	59		40-140
o-Terphenyl	59		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	76		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-24  
**Client ID:** SL2-3 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:48  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 09:49  
**Analyst:** MEO  
**Percent Solids:** 57%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:07  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	11.6	--	1
C19-C36 Aliphatics	ND		mg/kg	11.6	--	1
C11-C22 Aromatics	ND		mg/kg	11.6	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	11.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	62		40-140
o-Terphenyl	58		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	80		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-25  
 Client ID: SL2-4 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:50  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 08:00  
 Analyst: MEO  
 Percent Solids: 73%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:07  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	8.57	--	1
C19-C36 Aliphatics	ND		mg/kg	8.57	--	1
C11-C22 Aromatics	ND		mg/kg	8.57	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.57	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	66		40-140
o-Terphenyl	73		40-140
2-Fluorobiphenyl	95		40-140
2-Bromonaphthalene	100		40-140



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-26  
 Client ID: SL2-5 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:35  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 08:35  
 Analyst: MEO  
 Percent Solids: 70%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:07  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	9.35	--	1
C19-C36 Aliphatics	ND		mg/kg	9.35	--	1
C11-C22 Aromatics	ND		mg/kg	9.35	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	9.35	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	63		40-140
o-Terphenyl	61		40-140
2-Fluorobiphenyl	80		40-140
2-Bromonaphthalene	85		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-27  
 Client ID: SL2-6 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:35  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/24/20 19:32  
 Analyst: MEO  
 Percent Solids: 67%

Extraction Method: EPA 3546  
 Extraction Date: 11/22/20 17:41  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/24/20

**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	9.78	--	1
C19-C36 Aliphatics	ND		mg/kg	9.78	--	1
C11-C22 Aromatics	18.5		mg/kg	9.78	--	1
C11-C22 Aromatics, Adjusted	18.5		mg/kg	9.78	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	60		40-140
o-Terphenyl	82		40-140
2-Fluorobiphenyl	119		40-140
2-Bromonaphthalene	123		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-28  
 Client ID: SL2-7 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 13:30  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 12:48  
 Analyst: MEO  
 Percent Solids: 78%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:07  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	8.35	--	1
C19-C36 Aliphatics	ND		mg/kg	8.35	--	1
C11-C22 Aromatics	ND		mg/kg	8.35	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.35	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	40		40-140
o-Terphenyl	67		40-140
2-Fluorobiphenyl	83		40-140
2-Bromonaphthalene	89		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-29  
 Client ID: SL2-8 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:00  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 13:23  
 Analyst: MEO  
 Percent Solids: 84%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 11:07  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	7.86	--	1
C19-C36 Aliphatics	ND		mg/kg	7.86	--	1
C11-C22 Aromatics	ND		mg/kg	7.86	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.86	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	62		40-140
o-Terphenyl	72		40-140
2-Fluorobiphenyl	99		40-140
2-Bromonaphthalene	105		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-30  
**Client ID:** SL2-9 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:15  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/25/20 03:19  
**Analyst:** MEO  
**Percent Solids:** 73%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:07  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	8.70	--	1
C19-C36 Aliphatics	ND		mg/kg	8.70	--	1
C11-C22 Aromatics	ND		mg/kg	8.70	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.70	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	76		40-140
o-Terphenyl	89		40-140
2-Fluorobiphenyl	106		40-140
2-Bromonaphthalene	110		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-31  
**Client ID:** SL2-10 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:11  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 14:35  
**Analyst:** MEO  
**Percent Solids:** 72%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:07  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	8.72	--	1
C19-C36 Aliphatics	ND		mg/kg	8.72	--	1
C11-C22 Aromatics	48.9		mg/kg	8.72	--	1
C11-C22 Aromatics, Adjusted	38.5		mg/kg	8.72	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	61		40-140
o-Terphenyl	69		40-140
2-Fluorobiphenyl	83		40-140
2-Bromonaphthalene	88		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-32  
**Client ID:** SL3-1 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:35  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 15:11  
**Analyst:** MEO  
**Percent Solids:** 68%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 11:07  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	9.63	--	1
C19-C36 Aliphatics	51.2		mg/kg	9.63	--	1
C11-C22 Aromatics	ND		mg/kg	9.63	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	9.63	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	65		40-140
o-Terphenyl	64		40-140
2-Fluorobiphenyl	82		40-140
2-Bromonaphthalene	87		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-33  
**Client ID:** SL3-2 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:30  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 03:59  
**Analyst:** MEO  
**Percent Solids:** 64%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 15:52  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	28.6	--	1
C19-C36 Aliphatics	43.5		mg/kg	28.6	--	1
C11-C22 Aromatics	97.3		mg/kg	28.6	--	1
C11-C22 Aromatics, Adjusted	77.4		mg/kg	28.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	47		40-140
o-Terphenyl	57		40-140
2-Fluorobiphenyl	63		40-140
2-Bromonaphthalene	67		40-140



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-34  
**Client ID:** SL3-3 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:00  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 04:24  
**Analyst:** MEO  
**Percent Solids:** 60%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 15:52  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	28.8	--	1
C19-C36 Aliphatics	ND		mg/kg	28.8	--	1
C11-C22 Aromatics	98.4		mg/kg	28.8	--	1
C11-C22 Aromatics, Adjusted	75.1		mg/kg	28.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	45		40-140
o-Terphenyl	53		40-140
2-Fluorobiphenyl	64		40-140
2-Bromonaphthalene	66		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-35  
 Client ID: SL3-4 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:55  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/18/20 04:07  
 Analyst: MEO  
 Percent Solids: 66%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 13:25  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/17/20

**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	10.1	--	1
C19-C36 Aliphatics	13.6		mg/kg	10.1	--	1
C11-C22 Aromatics	18.3		mg/kg	10.1	--	1
C11-C22 Aromatics, Adjusted	18.3		mg/kg	10.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	64		40-140
o-Terphenyl	61		40-140
2-Fluorobiphenyl	75		40-140
2-Bromonaphthalene	75		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-36  
**Client ID:** SL3-5 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:51  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/18/20 04:31  
**Analyst:** MEO  
**Percent Solids:** 71%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 13:25  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/17/20

**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	8.92	--	1
C19-C36 Aliphatics	ND		mg/kg	8.92	--	1
C11-C22 Aromatics	ND		mg/kg	8.92	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.92	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	64		40-140
o-Terphenyl	64		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	82		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-37  
 Client ID: SL3-6 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:40  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 04:49  
 Analyst: MEO  
 Percent Solids: 55%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 15:52  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	32.9	--	1
C19-C36 Aliphatics	ND		mg/kg	32.9	--	1
C11-C22 Aromatics	ND		mg/kg	32.9	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	32.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	46		40-140
o-Terphenyl	53		40-140
2-Fluorobiphenyl	63		40-140
2-Bromonaphthalene	65		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-38  
**Client ID:** SL3-7 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:10  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/19/20 05:13  
**Analyst:** MEO  
**Percent Solids:** 59%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 15:52  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/18/20

**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	63.8		mg/kg	31.1	--	1
C19-C36 Aliphatics	ND		mg/kg	31.1	--	1
C11-C22 Aromatics	ND		mg/kg	31.1	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	31.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	42		40-140
o-Terphenyl	48		40-140
2-Fluorobiphenyl	62		40-140
2-Bromonaphthalene	64		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-39  
**Client ID:** SL3-8 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:33  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/18/20 04:56  
**Analyst:** MEO  
**Percent Solids:** 62%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 13:27  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/17/20

**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	10.5	--	1
C19-C36 Aliphatics	13.9		mg/kg	10.5	--	1
C11-C22 Aromatics	15.7		mg/kg	10.5	--	1
C11-C22 Aromatics, Adjusted	15.7		mg/kg	10.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	65		40-140
o-Terphenyl	63		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	78		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-40  
 Client ID: SL3-9 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:11  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment  
 Analytical Method: 135,EPH-19-2.1  
 Analytical Date: 11/19/20 05:38  
 Analyst: MEO  
 Percent Solids: 68%

Extraction Method: EPA 3546  
 Extraction Date: 11/16/20 15:52  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/18/20

**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	27.7	--	1
C19-C36 Aliphatics	ND		mg/kg	27.7	--	1
C11-C22 Aromatics	57.7		mg/kg	27.7	--	1
C11-C22 Aromatics, Adjusted	46.0		mg/kg	27.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	47		40-140
o-Terphenyl	54		40-140
2-Fluorobiphenyl	61		40-140
2-Bromonaphthalene	63		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-41  
**Client ID:** SL3-10 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:09  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment  
**Analytical Method:** 135,EPH-19-2.1  
**Analytical Date:** 11/18/20 05:20  
**Analyst:** MEO  
**Percent Solids:** 79%

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/16/20 13:27  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/17/20

**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	8.46	--	1
C19-C36 Aliphatics	ND		mg/kg	8.46	--	1
C11-C22 Aromatics	ND		mg/kg	8.46	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.46	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	76		40-140
o-Terphenyl	86		40-140
2-Fluorobiphenyl	94		40-140
2-Bromonaphthalene	94		40-140



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

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

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 11/19/20 03:47  
Analyst: MEO

Extraction Method: EPA 3546  
Extraction Date: 11/16/20 11:06  
Cleanup Method: EPH-04-1  
Cleanup Date: 11/18/20

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 12-26,28-32 Batch: WG1434778-1					
C9-C18 Aliphatics	ND		mg/kg	6.58	--
C19-C36 Aliphatics	ND		mg/kg	6.58	--
C11-C22 Aromatics	ND		mg/kg	6.58	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.58	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	64		40-140
o-Terphenyl	66		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	79		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

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

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 11/18/20 00:53  
Analyst: MEO

Extraction Method: EPA 3546  
Extraction Date: 11/16/20 13:25  
Cleanup Method: EPH-04-1  
Cleanup Date: 11/17/20

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 33-41 Batch: WG1434830-1					
C9-C18 Aliphatics	ND		mg/kg	6.26	--
C19-C36 Aliphatics	ND		mg/kg	6.26	--
C11-C22 Aromatics	ND		mg/kg	6.26	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.26	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	74		40-140
o-Terphenyl	66		40-140
2-Fluorobiphenyl	72		40-140
2-Bromonaphthalene	73		40-140

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 135,EPH-19-2.1  
Analytical Date: 11/24/20 18:19  
Analyst: MEO

Extraction Method: EPA 3546  
Extraction Date: 11/22/20 17:41  
Cleanup Method: EPH-04-1  
Cleanup Date: 11/24/20

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 27 Batch: WG1437282-1					
C9-C18 Aliphatics	ND		mg/kg	6.59	--
C19-C36 Aliphatics	ND		mg/kg	6.59	--
C11-C22 Aromatics	ND		mg/kg	6.59	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.59	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	63		40-140
o-Terphenyl	66		40-140
2-Fluorobiphenyl	97		40-140
2-Bromonaphthalene	100		40-140

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR

**Lab Number:** L2050541

**Project Number:** 414883

**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 12-26,28-32 Batch: WG1434778-2 WG1434778-3								
C9-C18 Aliphatics	58		55		40-140	5		25
C19-C36 Aliphatics	78		71		40-140	9		25
C11-C22 Aromatics	76		70		40-140	8		25
Naphthalene	69		65		40-140	6		25
2-Methylnaphthalene	69		66		40-140	4		25
Acenaphthylene	68		64		40-140	6		25
Acenaphthene	74		71		40-140	4		25
Fluorene	72		67		40-140	7		25
Phenanthrene	72		66		40-140	9		25
Anthracene	74		69		40-140	7		25
Fluoranthene	76		69		40-140	10		25
Pyrene	77		70		40-140	10		25
Benzo(a)anthracene	73		67		40-140	9		25
Chrysene	78		71		40-140	9		25
Benzo(b)fluoranthene	83		76		40-140	9		25
Benzo(k)fluoranthene	64		59		40-140	8		25
Benzo(a)pyrene	72		65		40-140	10		25
Indeno(1,2,3-cd)Pyrene	71		64		40-140	10		25
Dibenzo(a,h)anthracene	76		70		40-140	8		25
Benzo(ghi)perylene	71		64		40-140	10		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 12-26,28-32 Batch: WG1434778-2 WG1434778-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	73		72		40-140
o-Terphenyl	70		65		40-140
2-Fluorobiphenyl	82		77		40-140
2-Bromonaphthalene	81		76		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 33-41 Batch: WG1434830-2 WG1434830-3								
C9-C18 Aliphatics	62		62		40-140	0		25
C19-C36 Aliphatics	74		77		40-140	4		25
C11-C22 Aromatics	66		76		40-140	14		25
Naphthalene	60		67		40-140	11		25
2-Methylnaphthalene	61		69		40-140	12		25
Acenaphthylene	60		68		40-140	13		25
Acenaphthene	66		75		40-140	13		25
Fluorene	63		71		40-140	12		25
Phenanthrene	62		71		40-140	14		25
Anthracene	65		75		40-140	14		25
Fluoranthene	66		75		40-140	13		25
Pyrene	66		76		40-140	14		25
Benzo(a)anthracene	62		70		40-140	12		25
Chrysene	65		73		40-140	12		25
Benzo(b)fluoranthene	69		80		40-140	15		25
Benzo(k)fluoranthene	53		61		40-140	14		25
Benzo(a)pyrene	61		70		40-140	14		25
Indeno(1,2,3-cd)Pyrene	57		66		40-140	15		25
Dibenzo(a,h)anthracene	60		69		40-140	14		25
Benzo(ghi)perylene	56		64		40-140	13		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 33-41 Batch: WG1434830-2 WG1434830-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	71		68		40-140
o-Terphenyl	67		71		40-140
2-Fluorobiphenyl	70		78		40-140
2-Bromonaphthalene	70		76		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 27 Batch: WG1437282-2 WG1437282-3								
C9-C18 Aliphatics	59		63		40-140	7		25
C19-C36 Aliphatics	75		79		40-140	5		25
C11-C22 Aromatics	93		83		40-140	11		25
Naphthalene	86		71		40-140	19		25
2-Methylnaphthalene	89		75		40-140	17		25
Acenaphthylene	85		74		40-140	14		25
Acenaphthene	90		79		40-140	13		25
Fluorene	88		80		40-140	10		25
Phenanthrene	89		80		40-140	11		25
Anthracene	91		82		40-140	10		25
Fluoranthene	95		86		40-140	10		25
Pyrene	93		84		40-140	10		25
Benzo(a)anthracene	93		82		40-140	13		25
Chrysene	96		82		40-140	16		25
Benzo(b)fluoranthene	101		90		40-140	12		25
Benzo(k)fluoranthene	77		68		40-140	12		25
Benzo(a)pyrene	88		79		40-140	11		25
Indeno(1,2,3-cd)Pyrene	82		74		40-140	10		25
Dibenzo(a,h)anthracene	90		78		40-140	14		25
Benzo(ghi)perylene	79		71		40-140	11		25



### Lab Control Sample Analysis

#### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR

**Lab Number:** L2050541

**Project Number:** 414883

**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 27 Batch: WG1437282-2 WG1437282-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	66		70		40-140
o-Terphenyl	88		80		40-140
2-Fluorobiphenyl	120		93		40-140
2-Bromonaphthalene	124		98		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 12-26,28-32 QC Batch ID: WG1434778-4 WG1434778-5 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')												
C9-C18 Aliphatics	ND	48.4	26.5	55		29.4	58		40-140	10		50
C19-C36 Aliphatics	ND	64.6	50.0	77		54.4	81		40-140	8		50
C11-C22 Aromatics	ND	137	97.9	71		109	76		40-140	11		50
Naphthalene	ND	8.07	4.97	62		5.49	65		40-140	10		50
2-Methylnaphthalene	ND	8.07	5.01	62		5.56	66		40-140	10		50
Acenaphthylene	ND	8.07	4.96	61		5.58	66		40-140	12		50
Acenaphthene	ND	8.07	5.53	68		6.20	74		40-140	11		50
Fluorene	ND	8.07	5.32	66		6.02	72		40-140	12		50
Phenanthrene	ND	8.07	5.33	66		6.03	72		40-140	12		50
Anthracene	ND	8.07	5.31	66		6.09	72		40-140	14		50
Fluoranthene	ND	8.07	5.53	68		6.24	74		40-140	12		50
Pyrene	ND	8.07	5.61	69		6.28	75		40-140	11		50
Benzo(a)anthracene	ND	8.07	5.26	65		5.93	70		40-140	12		50
Chrysene	ND	8.07	5.60	69		6.35	75		40-140	13		50
Benzo(b)fluoranthene	ND	8.07	6.00	74		6.74	80		40-140	12		50
Benzo(k)fluoranthene	ND	8.07	4.62	57		5.20	62		40-140	12		50
Benzo(a)pyrene	ND	8.07	5.18	64		5.83	69		40-140	12		50
Indeno(1,2,3-cd)Pyrene	ND	8.07	5.05	62		5.66	67		40-140	11		50
Dibenzo(a,h)anthracene	ND	8.07	5.42	67		6.06	72		40-140	11		50
Benzo(ghi)perylene	ND	8.07	5.04	62		5.66	67		40-140	12		50

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 12-26,28-32 QC Batch ID: WG1434778-4 WG1434778-5 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')												

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
2-Bromonaphthalene	78		77		40-140
2-Fluorobiphenyl	79		78		40-140
Chloro-Octadecane	62		67		40-140
o-Terphenyl	61		67		40-140

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 12-26,28-32 QC Batch ID: WG1434778-6 WG1434778-7 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')												
C9-C18 Aliphatics	ND	55.2	24.7	45		24.7	44		40-140	0		50
C19-C36 Aliphatics	ND	73.5	58.1	79		61.1	81		40-140	5		50
C11-C22 Aromatics	ND	156	125	80		140	87		40-140	11		50
Naphthalene	ND	9.19	6.49	71		7.12	76		40-140	9		50
2-Methylnaphthalene	ND	9.19	6.68	73		7.38	78		40-140	10		50
Acenaphthylene	ND	9.19	6.44	70		7.12	76		40-140	10		50
Acenaphthene	ND	9.19	6.80	74		7.54	80		40-140	10		50
Fluorene	ND	9.19	7.00	76		7.78	82		40-140	11		50
Phenanthrene	ND	9.19	7.21	78		8.03	85		40-140	11		50
Anthracene	ND	9.19	7.14	78		8.00	85		40-140	11		50
Fluoranthene	ND	9.19	7.32	80		8.15	86		40-140	11		50
Pyrene	ND	9.19	7.30	79		8.13	86		40-140	11		50
Benzo(a)anthracene	ND	9.19	7.32	80		8.16	86		40-140	11		50
Chrysene	ND	9.19	7.28	79		8.10	86		40-140	11		50
Benzo(b)fluoranthene	ND	9.19	8.08	88		8.93	95		40-140	10		50
Benzo(k)fluoranthene	ND	9.19	6.05	66		6.67	71		40-140	10		50
Benzo(a)pyrene	ND	9.19	6.95	76		7.66	81		40-140	10		50
Indeno(1,2,3-cd)Pyrene	ND	9.19	6.82	74		7.54	80		40-140	10		50
Dibenzo(a,h)anthracene	ND	9.19	7.29	79		8.04	85		40-140	10		50
Benzo(ghi)perylene	ND	9.19	6.55	71		7.22	76		40-140	10		50

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 12-26,28-32 QC Batch ID: WG1434778-6 WG1434778-7 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')												

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
2-Bromonaphthalene	90		100		40-140
2-Fluorobiphenyl	86		96		40-140
Chloro-Octadecane	64		66		40-140
o-Terphenyl	70		76		40-140

## METALS

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-01

Date Collected: 11/13/20 11:00

Client ID: SW-1

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:30	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 15:44	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-02

Date Collected: 11/13/20 11:08

Client ID: SW-2

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:33	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 17:07	EPA 3005A	97,6020B	AM





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-03

Date Collected: 11/13/20 11:11

Client ID: SW-3

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:36	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 17:12	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-04

Date Collected: 11/13/20 12:37

Client ID: SW-4

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:40	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 17:17	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-05

Date Collected: 11/13/20 12:40

Client ID: SW-5

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:43	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 17:22	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-06

Date Collected: 11/13/20 12:44

Client ID: SW-6

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:46	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 18:07	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-07

Date Collected: 11/13/20 12:48

Client ID: SW-7

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:49	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 18:12	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-08

Date Collected: 11/13/20 13:18

Client ID: SW-8

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:59	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 18:17	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-09

Date Collected: 11/13/20 13:22

Client ID: SW-9

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	12/01/20 11:01	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 15:20	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 17:02	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-10

Date Collected: 11/13/20 13:26

Client ID: SW-10

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 16:03	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 18:22	EPA 3005A	97,6020B	AM





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-11

Date Collected: 11/13/20 12:41

Client ID: DUP-11

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Mansfield Lab</b>											
Antimony, Dissolved	ND		mg/l	0.2000	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Barium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Chromium, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Lead, Dissolved	ND		mg/l	0.0500	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 16:06	EPA 7470A	97,7470A	EW
Nickel, Dissolved	ND		mg/l	0.1000	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Selenium, Dissolved	ND		mg/l	0.250	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Silver, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Thallium, Dissolved	ND		mg/l	0.0250	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.2500	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM
Zinc, Dissolved	ND		mg/l	0.5000	--	50	11/30/20 09:22	11/30/20 18:28	EPA 3005A	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-12

Date Collected: 11/13/20 13:00

Client ID: SL1-1 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 74%

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	2.1	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Arsenic, Total	11		mg/kg	0.65	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Barium, Total	14		mg/kg	3.9	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Beryllium, Total	ND		mg/kg	0.39	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.26	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Chromium, Total	13		mg/kg	2.6	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Lead, Total	51		mg/kg	0.78	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.107	--	1	12/01/20 14:49	12/01/20 18:28	EPA 7471B	97,7471B	VW
Nickel, Total	13		mg/kg	1.3	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.6	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.65	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.52	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Vanadium, Total	37		mg/kg	1.3	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM
Zinc, Total	48		mg/kg	13	--	10	12/01/20 15:01	12/01/20 18:05	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-13

Date Collected: 11/13/20 11:32

Client ID: SL1-2 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 75%

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	2.1	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Arsenic, Total	14		mg/kg	0.65	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Barium, Total	14		mg/kg	3.9	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Beryllium, Total	0.76		mg/kg	0.39	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.26	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Chromium, Total	20		mg/kg	2.6	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Lead, Total	48		mg/kg	0.78	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.096	--	1	12/01/20 14:49	12/01/20 18:31	EPA 7471B	97,7471B	VW
Nickel, Total	47		mg/kg	1.3	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.6	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.65	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.52	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Vanadium, Total	300		mg/kg	1.3	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM
Zinc, Total	84		mg/kg	13	--	10	12/01/20 15:01	12/01/20 18:10	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-14

Date Collected: 11/13/20 11:52

Client ID: SL1-3 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 69%

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	2.3	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Arsenic, Total	22		mg/kg	0.71	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Barium, Total	12		mg/kg	4.3	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Beryllium, Total	0.60		mg/kg	0.43	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.28	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Chromium, Total	11		mg/kg	2.8	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Lead, Total	33		mg/kg	0.85	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.102	--	1	12/01/20 14:49	12/01/20 18:35	EPA 7471B	97,7471B	VW
Nickel, Total	21		mg/kg	1.4	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.8	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.71	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.57	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Vanadium, Total	230		mg/kg	1.4	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM
Zinc, Total	50		mg/kg	14	--	10	12/01/20 15:01	12/01/20 18:15	EPA 3050B	97,6020B	AM

**Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab**

Sulfide, Acid Volatile	ND		umoles/gm	0.624	--	1			36,-	36,-	TM
Cadmium, Total	ND		umoles/g	0.001876	--	5	11/21/20 10:44	11/23/20 14:14	36,-	1,6020B	AM
Copper, Total	0.324969		umoles/g	0.016591	--	5	11/21/20 10:44	11/23/20 14:14	36,-	1,6020B	AM
Lead, Total	0.194830		umoles/g	0.010176	--	5	11/21/20 10:44	11/23/20 14:14	36,-	1,6020B	AM
Nickel, Total	0.092356		umoles/g	0.035919	--	5	11/21/20 10:44	11/23/20 14:14	36,-	1,6020B	AM
Zinc, Total	0.567617		umoles/g	0.032254	--	5	11/21/20 10:44	11/23/20 14:14	36,-	1,6020B	AM
SEM/AVS Ratio	NA		-	0	NA	5	11/21/20 10:44	11/23/20 14:14	36,-	1,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-15

Date Collected: 11/13/20 11:45

Client ID: SL1-4 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 77%

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	2.4		mg/kg	2.0	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Arsenic, Total	30		mg/kg	0.63	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Barium, Total	9.8		mg/kg	3.8	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Beryllium, Total	0.59		mg/kg	0.38	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.25	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Chromium, Total	11		mg/kg	2.5	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Lead, Total	50		mg/kg	0.75	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.098	--	1	12/01/20 14:49	12/01/20 18:38	EPA 7471B	97,7471B	VW
Nickel, Total	100		mg/kg	1.2	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.5	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.63	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.50	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Vanadium, Total	630		mg/kg	1.2	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM
Zinc, Total	47		mg/kg	12	--	10	12/01/20 15:01	12/01/20 18:20	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-16

Date Collected: 11/13/20 11:50

Client ID: SL1-5 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 79%

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	2.2		mg/kg	2.0	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Arsenic, Total	13		mg/kg	0.63	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Barium, Total	17		mg/kg	3.8	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Beryllium, Total	0.62		mg/kg	0.38	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.25	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Chromium, Total	16		mg/kg	2.5	--	10	12/01/20 15:01	12/02/20 08:28	EPA 3050B	97,6020B	AM
Lead, Total	47		mg/kg	0.75	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.103	--	1	12/01/20 14:49	12/01/20 18:03	EPA 7471B	97,7471B	VW
Nickel, Total	46		mg/kg	1.2	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.5	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.63	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.50	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM
Vanadium, Total	160		mg/kg	1.2	--	10	12/01/20 15:01	12/02/20 08:28	EPA 3050B	97,6020B	AM
Zinc, Total	82		mg/kg	12	--	10	12/01/20 15:01	12/01/20 17:38	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-17

Date Collected: 11/13/20 12:20

Client ID: SL1-6 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 83%

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	1.9	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Arsenic, Total	11		mg/kg	0.58	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Barium, Total	17		mg/kg	3.5	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Beryllium, Total	0.58		mg/kg	0.35	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.23	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Chromium, Total	18		mg/kg	2.3	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Lead, Total	58		mg/kg	0.70	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.081	--	1	12/01/20 14:49	12/01/20 18:48	EPA 7471B	97,7471B	VW
Nickel, Total	77		mg/kg	1.2	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.3	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.58	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.47	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Vanadium, Total	1100		mg/kg	1.2	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM
Zinc, Total	59		mg/kg	12	--	10	12/01/20 15:01	12/01/20 18:25	EPA 3050B	97,6020B	AM

**Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab**

Sulfide, Acid Volatile	ND		umoles/gm	0.624	--	1			36,-	36,-	TM
Cadmium, Total	ND		umoles/g	0.002071	--	5	11/21/20 10:44	11/23/20 14:19	36,-	1,6020B	AM
Copper, Total	0.387891		umoles/g	0.018320	--	5	11/21/20 10:44	11/23/20 14:19	36,-	1,6020B	AM
Lead, Total	0.227310		umoles/g	0.011236	--	5	11/21/20 10:44	11/23/20 14:19	36,-	1,6020B	AM
Nickel, Total	0.341980		umoles/g	0.039662	--	5	11/21/20 10:44	11/23/20 14:19	36,-	1,6020B	AM
Zinc, Total	0.691273		umoles/g	0.035615	--	5	11/21/20 10:44	11/23/20 14:19	36,-	1,6020B	AM
SEM/AVS Ratio	NA		-	0	NA	5	11/21/20 10:44	11/23/20 14:19	36,-	1,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-18

Date Collected: 11/13/20 12:05

Client ID: SL1-7 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 81%

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	1.9	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Arsenic, Total	18		mg/kg	0.59	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Barium, Total	16		mg/kg	3.5	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Beryllium, Total	0.45		mg/kg	0.35	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.24	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Chromium, Total	30		mg/kg	2.4	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Lead, Total	30		mg/kg	0.71	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.083	--	1	12/01/20 14:49	12/01/20 18:51	EPA 7471B	97,7471B	VW
Nickel, Total	6100		mg/kg	59	--	500	12/01/20 15:01	12/02/20 10:12	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.4	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.59	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.47	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM
Vanadium, Total	13000		mg/kg	59	--	500	12/01/20 15:01	12/02/20 10:12	EPA 3050B	97,6020B	AM
Zinc, Total	80		mg/kg	12	--	10	12/01/20 15:01	12/01/20 18:30	EPA 3050B	97,6020B	AM





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-19

Date Collected: 11/13/20 12:15

Client ID: SL1-8 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 85%

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	1.8	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Arsenic, Total	15		mg/kg	0.58	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Barium, Total	30		mg/kg	3.5	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Beryllium, Total	0.54		mg/kg	0.35	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.23	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Chromium, Total	250		mg/kg	2.3	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Lead, Total	53		mg/kg	0.69	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.088	--	1	12/01/20 14:49	12/01/20 18:54	EPA 7471B	97,7471B	VW
Nickel, Total	2100		mg/kg	1.2	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.3	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.58	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.46	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM
Vanadium, Total	7200		mg/kg	58	--	500	12/01/20 15:01	12/02/20 11:12	EPA 3050B	97,6020B	AM
Zinc, Total	72		mg/kg	12	--	10	12/01/20 15:01	12/01/20 18:35	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-20

Date Collected: 11/13/20 12:30

Client ID: SL1-9 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 85%

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	1.8	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Arsenic, Total	18		mg/kg	0.56	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Barium, Total	20		mg/kg	3.4	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Beryllium, Total	0.59		mg/kg	0.34	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.22	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Chromium, Total	13		mg/kg	2.2	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Lead, Total	54		mg/kg	0.67	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.084	--	1	12/01/20 14:49	12/01/20 18:58	EPA 7471B	97,7471B	VW
Nickel, Total	60		mg/kg	1.1	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.2	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.56	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.45	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Vanadium, Total	450		mg/kg	1.1	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM
Zinc, Total	81		mg/kg	11	--	10	12/01/20 15:01	12/01/20 18:40	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-21

Date Collected: 11/13/20 11:24

Client ID: SL1-10 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 64%

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	2.5	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Arsenic, Total	24		mg/kg	0.77	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Barium, Total	17		mg/kg	4.6	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Beryllium, Total	0.78		mg/kg	0.46	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.31	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Chromium, Total	21		mg/kg	3.1	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Lead, Total	67		mg/kg	0.93	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.100	--	1	12/01/20 14:49	12/01/20 19:01	EPA 7471B	97,7471B	VW
Nickel, Total	24		mg/kg	1.5	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.1	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.77	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.62	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Vanadium, Total	120		mg/kg	1.5	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM
Zinc, Total	110		mg/kg	15	--	10	12/01/20 15:01	12/01/20 18:45	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-22

Date Collected: 11/13/20 13:05

Client ID: SL2-1 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 63%

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	2.4	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Arsenic, Total	14		mg/kg	0.75	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Barium, Total	18		mg/kg	4.5	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Beryllium, Total	0.60		mg/kg	0.45	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.30	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Chromium, Total	18		mg/kg	3.0	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Lead, Total	47		mg/kg	0.90	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.126	--	1	12/01/20 14:49	12/01/20 19:04	EPA 7471B	97,7471B	VW
Nickel, Total	41		mg/kg	1.5	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.0	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.75	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.60	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Vanadium, Total	150		mg/kg	1.5	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM
Zinc, Total	73		mg/kg	15	--	10	12/01/20 15:01	12/02/20 08:38	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-23

Date Collected: 11/13/20 13:45

Client ID: SL2-2 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 57%

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	2.7	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Arsenic, Total	15		mg/kg	0.84	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Barium, Total	29		mg/kg	5.0	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Beryllium, Total	0.62		mg/kg	0.50	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.34	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Chromium, Total	32		mg/kg	3.4	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Lead, Total	78		mg/kg	1.0	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Mercury, Total	0.198		mg/kg	0.128	--	1	12/01/20 14:49	12/01/20 19:08	EPA 7471B	97,7471B	VW
Nickel, Total	93		mg/kg	1.7	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.4	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.84	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.67	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Vanadium, Total	1400		mg/kg	1.7	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM
Zinc, Total	110		mg/kg	17	--	10	12/01/20 15:01	12/02/20 08:43	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-24

Date Collected: 11/13/20 14:48

Client ID: SL2-3 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 57%

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	2.7	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Arsenic, Total	22		mg/kg	0.85	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Barium, Total	40		mg/kg	5.1	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Beryllium, Total	0.89		mg/kg	0.51	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.34	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Chromium, Total	43		mg/kg	3.4	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Lead, Total	100		mg/kg	1.0	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Mercury, Total	0.221		mg/kg	0.118	--	1	12/01/20 14:49	12/01/20 19:11	EPA 7471B	97,7471B	VW
Nickel, Total	64		mg/kg	1.7	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.4	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.85	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.68	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Vanadium, Total	220		mg/kg	1.7	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
Zinc, Total	130		mg/kg	17	--	10	12/01/20 15:01	12/02/20 09:28	EPA 3050B	97,6020B	AM
<b>Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab</b>											
Sulfide, Acid Volatile	6.01		umoles/gm	0.624	--	1			36,-	36,-	TM
Cadmium, Total	ND		umoles/g	0.003395	--	5	11/21/20 10:44	11/23/20 14:25	36,-	1,6020B	AM
Copper, Total	0.503314		umoles/g	0.030026	--	5	11/21/20 10:44	11/23/20 14:25	36,-	1,6020B	AM
Lead, Total	0.464640		umoles/g	0.018416	--	5	11/21/20 10:44	11/23/20 14:25	36,-	1,6020B	AM
Nickel, Total	0.358799		umoles/g	0.065003	--	5	11/21/20 10:44	11/23/20 14:25	36,-	1,6020B	AM
Zinc, Total	1.42365		umoles/g	0.058371	--	5	11/21/20 10:44	11/23/20 14:25	36,-	1,6020B	AM
SEM/AVS Ratio	0.457638		-	-	NA	5	11/21/20 10:44	11/23/20 14:25	36,-	1,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-25

Date Collected: 11/13/20 13:50

Client ID: SL2-4 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 73%

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	2.1	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Arsenic, Total	19		mg/kg	0.65	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Barium, Total	13		mg/kg	3.9	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Beryllium, Total	0.42		mg/kg	0.39	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.26	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Chromium, Total	14		mg/kg	2.6	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Lead, Total	57		mg/kg	0.78	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.103	--	1	12/01/20 14:49	12/01/20 19:14	EPA 7471B	97,7471B	VW
Nickel, Total	28		mg/kg	1.3	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.6	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.65	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.52	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Vanadium, Total	61		mg/kg	1.3	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM
Zinc, Total	53		mg/kg	13	--	10	12/01/20 15:01	12/02/20 09:42	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-26

Date Collected: 11/13/20 13:35

Client ID: SL2-5 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 70%

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	2.3	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Arsenic, Total	16		mg/kg	0.72	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Barium, Total	21		mg/kg	4.3	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Beryllium, Total	0.60		mg/kg	0.43	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.29	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Chromium, Total	24		mg/kg	2.9	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Lead, Total	580		mg/kg	0.86	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.098	--	1	12/01/20 14:49	12/01/20 18:18	EPA 7471B	97,7471B	VW
Nickel, Total	170		mg/kg	1.4	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.9	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.72	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.29	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Vanadium, Total	480		mg/kg	1.4	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM
Zinc, Total	190		mg/kg	14	--	10	12/01/20 15:01	12/02/20 08:33	EPA 3050B	97,6020B	AM





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-27

Date Collected: 11/13/20 13:35

Client ID: SL2-6 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 67%

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	2.3	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Arsenic, Total	24		mg/kg	0.72	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Barium, Total	23		mg/kg	4.3	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Beryllium, Total	0.72		mg/kg	0.43	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.29	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Chromium, Total	24		mg/kg	2.9	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Lead, Total	100		mg/kg	0.87	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Mercury, Total	0.174		mg/kg	0.102	--	1	12/01/20 14:49	12/01/20 19:18	EPA 7471B	97,7471B	VW
Nickel, Total	94		mg/kg	1.4	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.9	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.72	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.58	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Vanadium, Total	410		mg/kg	1.4	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM
Zinc, Total	110		mg/kg	14	--	10	12/01/20 15:01	12/02/20 09:47	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-28

Date Collected: 11/13/20 13:30

Client ID: SL2-7 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 78%

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	2.0	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Arsenic, Total	23		mg/kg	0.62	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Barium, Total	14		mg/kg	3.7	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Beryllium, Total	0.54		mg/kg	0.37	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.25	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Chromium, Total	14		mg/kg	2.5	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Lead, Total	31		mg/kg	0.74	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.095	--	1	12/01/20 14:49	12/01/20 19:27	EPA 7471B	97,7471B	VW
Nickel, Total	32		mg/kg	1.2	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.5	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.62	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.50	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Vanadium, Total	200		mg/kg	1.2	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM
Zinc, Total	74		mg/kg	12	--	10	12/01/20 15:01	12/02/20 09:52	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-29

Date Collected: 11/13/20 14:00

Client ID: SL2-8 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 84%

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	2.1		mg/kg	1.8	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Arsenic, Total	20		mg/kg	0.58	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Barium, Total	19		mg/kg	3.5	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Beryllium, Total	0.55		mg/kg	0.35	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.23	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Chromium, Total	28		mg/kg	2.3	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Lead, Total	40		mg/kg	0.69	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.076	--	1	12/01/20 14:49	12/01/20 19:31	EPA 7471B	97,7471B	VW
Nickel, Total	40		mg/kg	1.2	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.3	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.58	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.46	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Vanadium, Total	110		mg/kg	1.2	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
Zinc, Total	120		mg/kg	12	--	10	12/01/20 15:01	12/02/20 09:57	EPA 3050B	97,6020B	AM
<b>Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab</b>											
Sulfide, Acid Volatile	ND		umoles/gm	0.624	--	1			36,-	36,-	TM
Cadmium, Total	ND		umoles/g	0.001357	--	5	11/21/20 10:44	11/23/20 14:30	36,-	1,6020B	AM
Copper, Total	0.830047		umoles/g	0.012004	--	5	11/21/20 10:44	11/23/20 14:30	36,-	1,6020B	AM
Lead, Total	0.152185		umoles/g	0.007362	--	5	11/21/20 10:44	11/23/20 14:30	36,-	1,6020B	AM
Nickel, Total	0.105079		umoles/g	0.025988	--	5	11/21/20 10:44	11/23/20 14:30	36,-	1,6020B	AM
Zinc, Total	0.678504		umoles/g	0.023336	--	5	11/21/20 10:44	11/23/20 14:30	36,-	1,6020B	AM
SEM/AVS Ratio	NA		-	0	NA	5	11/21/20 10:44	11/23/20 14:30	36,-	1,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-30

Date Collected: 11/13/20 13:15

Client ID: SL2-9 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 73%

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	2.1	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Arsenic, Total	8.0		mg/kg	0.65	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Barium, Total	6.3		mg/kg	3.9	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Beryllium, Total	ND		mg/kg	0.39	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.26	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Chromium, Total	10		mg/kg	2.6	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Lead, Total	22		mg/kg	0.78	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.110	--	1	12/01/20 14:49	12/01/20 19:34	EPA 7471B	97,7471B	VW
Nickel, Total	17		mg/kg	1.3	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.6	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.65	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.52	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Vanadium, Total	49		mg/kg	1.3	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM
Zinc, Total	81		mg/kg	13	--	10	12/01/20 15:01	12/02/20 10:02	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-31

Date Collected: 11/13/20 13:11

Client ID: SL2-10 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 72%

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	2.1	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Arsenic, Total	43		mg/kg	0.67	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Barium, Total	13		mg/kg	4.0	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Beryllium, Total	0.59		mg/kg	0.40	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.27	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Chromium, Total	13		mg/kg	2.7	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Lead, Total	42		mg/kg	0.80	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.100	--	1	12/01/20 14:49	12/01/20 19:37	EPA 7471B	97,7471B	VW
Nickel, Total	45		mg/kg	1.3	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.7	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.67	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.54	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Vanadium, Total	97		mg/kg	1.3	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM
Zinc, Total	150		mg/kg	13	--	10	12/01/20 15:01	12/02/20 10:07	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-32

Date Collected: 11/13/20 14:35

Client ID: SL3-1 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 68%

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	2.3	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Arsenic, Total	10		mg/kg	0.73	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Barium, Total	21		mg/kg	4.4	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Beryllium, Total	ND		mg/kg	0.44	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.29	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Chromium, Total	38		mg/kg	2.9	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Lead, Total	50		mg/kg	0.87	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.106	--	1	11/30/20 15:55	11/30/20 19:23	EPA 7471B	97,7471B	EW
Nickel, Total	45		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.9	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.73	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.58	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Vanadium, Total	110		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM
Zinc, Total	110		mg/kg	14	--	10	11/30/20 15:47	12/01/20 13:57	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-33

Date Collected: 11/13/20 15:30

Client ID: SL3-2 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 64%

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	2.4	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Arsenic, Total	9.0		mg/kg	0.76	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Barium, Total	28		mg/kg	4.6	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Beryllium, Total	0.56		mg/kg	0.46	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.30	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Chromium, Total	23		mg/kg	3.0	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Lead, Total	47		mg/kg	0.91	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Mercury, Total	0.120		mg/kg	0.110	--	1	11/30/20 15:55	11/30/20 19:33	EPA 7471B	97,7471B	EW
Nickel, Total	32		mg/kg	1.5	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.0	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.76	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.61	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Vanadium, Total	100		mg/kg	1.5	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM
Zinc, Total	92		mg/kg	15	--	10	11/30/20 15:47	12/01/20 14:02	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-34

Date Collected: 11/13/20 15:00

Client ID: SL3-3 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 60%

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	2.7	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Arsenic, Total	10		mg/kg	0.83	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Barium, Total	16		mg/kg	5.0	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Beryllium, Total	0.51		mg/kg	0.50	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.33	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Chromium, Total	22		mg/kg	3.3	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Lead, Total	30		mg/kg	1.0	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Mercury, Total	0.120		mg/kg	0.116	--	1	11/30/20 15:55	11/30/20 19:36	EPA 7471B	97,7471B	EW
Nickel, Total	25		mg/kg	1.7	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.3	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.83	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.67	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Vanadium, Total	130		mg/kg	1.7	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
Zinc, Total	70		mg/kg	17	--	10	11/30/20 15:47	12/01/20 14:07	EPA 3050B	97,6020B	AM
<b>Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab</b>											
Sulfide, Acid Volatile	7.21		umoles/gm	0.624	--	1			36,-	36,-	TM
Cadmium, Total	ND		umoles/g	0.002383	--	5	11/21/20 10:44	11/23/20 14:35	36,-	1,6020B	AM
Copper, Total	0.122005		umoles/g	0.021075	--	5	11/21/20 10:44	11/23/20 14:35	36,-	1,6020B	AM
Lead, Total	0.126350		umoles/g	0.012926	--	5	11/21/20 10:44	11/23/20 14:35	36,-	1,6020B	AM
Nickel, Total	0.200296		umoles/g	0.045625	--	5	11/21/20 10:44	11/23/20 14:35	36,-	1,6020B	AM
Zinc, Total	0.594173		umoles/g	0.040969	--	5	11/21/20 10:44	11/23/20 14:35	36,-	1,6020B	AM
SEM/AVS Ratio	0.144636		-	-	NA	5	11/21/20 10:44	11/23/20 14:35	36,-	1,6020B	AM





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-35

Date Collected: 11/13/20 14:55

Client ID: SL3-4 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 66%

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	2.3	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Arsenic, Total	10		mg/kg	0.72	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Barium, Total	17		mg/kg	4.3	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Beryllium, Total	0.52		mg/kg	0.43	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.29	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Chromium, Total	20		mg/kg	2.9	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Lead, Total	29		mg/kg	0.86	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.107	--	1	11/30/20 15:55	11/30/20 19:40	EPA 7471B	97,7471B	EW
Nickel, Total	40		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.9	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.72	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.57	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Vanadium, Total	140		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM
Zinc, Total	59		mg/kg	14	--	10	11/30/20 15:47	12/01/20 14:12	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-36

Date Collected: 11/13/20 14:51

Client ID: SL3-5 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 71%

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	2.2	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Arsenic, Total	9.9		mg/kg	0.68	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Barium, Total	11		mg/kg	4.0	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Beryllium, Total	0.48		mg/kg	0.40	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.27	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Chromium, Total	13		mg/kg	2.7	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Lead, Total	29		mg/kg	0.81	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.092	--	1	11/30/20 15:55	11/30/20 19:43	EPA 7471B	97,7471B	EW
Nickel, Total	78		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.7	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.68	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.54	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Vanadium, Total	310		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM
Zinc, Total	63		mg/kg	14	--	10	11/30/20 15:47	12/01/20 14:17	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-37

Date Collected: 11/13/20 14:40

Client ID: SL3-6 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 55%

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	2.8	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Arsenic, Total	15		mg/kg	0.88	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Barium, Total	31		mg/kg	5.3	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Beryllium, Total	0.77		mg/kg	0.53	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.35	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Chromium, Total	40		mg/kg	3.5	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Lead, Total	74		mg/kg	1.0	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Mercury, Total	0.206		mg/kg	0.132	--	1	11/30/20 15:55	11/30/20 19:46	EPA 7471B	97,7471B	EW
Nickel, Total	46		mg/kg	1.8	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.5	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.88	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.70	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Vanadium, Total	180		mg/kg	1.8	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM
Zinc, Total	84		mg/kg	18	--	10	11/30/20 15:47	12/01/20 14:22	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-38

Date Collected: 11/13/20 15:10

Client ID: SL3-7 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 59%

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	2.6	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Arsenic, Total	21		mg/kg	0.82	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Barium, Total	30		mg/kg	4.9	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Beryllium, Total	0.77		mg/kg	0.49	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.33	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Chromium, Total	37		mg/kg	3.3	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Lead, Total	55		mg/kg	0.98	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Mercury, Total	0.167		mg/kg	0.128	--	1	11/30/20 15:55	11/30/20 19:50	EPA 7471B	97,7471B	EW
Nickel, Total	28		mg/kg	1.6	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.3	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.82	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.65	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Vanadium, Total	100		mg/kg	1.6	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
Zinc, Total	84		mg/kg	16	--	10	11/30/20 15:47	12/01/20 14:27	EPA 3050B	97,6020B	AM
<b>Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab</b>											
Sulfide, Acid Volatile	8.49		umoles/gm	0.624	--	1			36,-	36,-	TM
Cadmium, Total	ND		umoles/g	0.003473	--	5	11/21/20 10:44	11/23/20 14:40	36,-	1,6020B	AM
Copper, Total	0.399660		umoles/g	0.030715	--	5	11/21/20 10:44	11/23/20 14:40	36,-	1,6020B	AM
Lead, Total	0.290325		umoles/g	0.018838	--	5	11/21/20 10:44	11/23/20 14:40	36,-	1,6020B	AM
Nickel, Total	0.219380		umoles/g	0.066494	--	5	11/21/20 10:44	11/23/20 14:40	36,-	1,6020B	AM
Zinc, Total	1.01609		umoles/g	0.059710	--	5	11/21/20 10:44	11/23/20 14:40	36,-	1,6020B	AM
SEM/AVS Ratio	0.226791		-	-	NA	5	11/21/20 10:44	11/23/20 14:40	36,-	1,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-39

Date Collected: 11/13/20 14:33

Client ID: SL3-8 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 62%

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	2.5	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Arsenic, Total	12		mg/kg	0.78	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Barium, Total	32		mg/kg	4.7	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Beryllium, Total	0.58		mg/kg	0.47	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.31	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Chromium, Total	37		mg/kg	3.1	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Lead, Total	52		mg/kg	0.94	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Mercury, Total	0.191		mg/kg	0.120	--	1	11/30/20 15:55	11/30/20 19:53	EPA 7471B	97,7471B	EW
Nickel, Total	24		mg/kg	1.6	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	3.1	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.78	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.63	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Vanadium, Total	120		mg/kg	1.6	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM
Zinc, Total	81		mg/kg	16	--	10	11/30/20 15:47	12/01/20 14:32	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-40

Date Collected: 11/13/20 14:11

Client ID: SL3-9 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 68%

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	2.2	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Arsenic, Total	12		mg/kg	0.70	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Barium, Total	18		mg/kg	4.2	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Beryllium, Total	0.45		mg/kg	0.42	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.28	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Chromium, Total	18		mg/kg	2.8	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Lead, Total	37		mg/kg	0.83	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.101	--	1	11/30/20 15:55	11/30/20 19:56	EPA 7471B	97,7471B	EW
Nickel, Total	19		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.8	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.70	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.56	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Vanadium, Total	80		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM
Zinc, Total	52		mg/kg	14	--	10	11/30/20 15:47	12/01/20 14:36	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-41

Date Collected: 11/13/20 14:09

Client ID: SL3-10 (0-0.5')

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 79%

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	2.0	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Arsenic, Total	5.1		mg/kg	0.63	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Barium, Total	6.7		mg/kg	3.8	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Beryllium, Total	ND		mg/kg	0.38	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.25	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Chromium, Total	8.0		mg/kg	2.5	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Lead, Total	13		mg/kg	0.76	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.086	--	1	11/30/20 15:55	11/30/20 20:00	EPA 7471B	97,7471B	EW
Nickel, Total	11		mg/kg	1.2	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.5	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.63	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.50	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Vanadium, Total	23		mg/kg	1.2	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM
Zinc, Total	21		mg/kg	12	--	10	11/30/20 15:47	12/01/20 14:41	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-42

Date Collected: 11/13/20 12:06

Client ID: DUP-1

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 85%

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	2.2		mg/kg	1.8	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Arsenic, Total	10		mg/kg	0.57	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Barium, Total	20		mg/kg	3.4	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Beryllium, Total	0.41		mg/kg	0.34	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.23	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Chromium, Total	17		mg/kg	2.3	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Lead, Total	25		mg/kg	0.68	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.084	--	1	11/30/20 15:55	11/30/20 20:03	EPA 7471B	97,7471B	EW
Nickel, Total	1000		mg/kg	1.1	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.3	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.57	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.45	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM
Vanadium, Total	6000		mg/kg	5.7	--	50	11/30/20 15:47	12/01/20 15:42	EPA 3050B	97,6020B	AM
Zinc, Total	61		mg/kg	11	--	10	11/30/20 15:47	12/01/20 15:07	EPA 3050B	97,6020B	AM





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**SAMPLE RESULTS**

Lab ID: L2050541-43

Date Collected: 11/13/20 13:51

Client ID: DUP-2

Date Received: 11/13/20

Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Sediment

Percent Solids: 71%

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	2.2	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Arsenic, Total	15		mg/kg	0.70	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Barium, Total	14		mg/kg	4.2	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Beryllium, Total	0.51		mg/kg	0.42	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Cadmium, Total	ND		mg/kg	0.28	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Chromium, Total	12		mg/kg	2.8	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Lead, Total	40		mg/kg	0.84	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Mercury, Total	ND		mg/kg	0.100	--	1	11/30/20 15:55	11/30/20 20:13	EPA 7471B	97,7471B	EW
Nickel, Total	34		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Selenium, Total	ND		mg/kg	2.8	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Silver, Total	ND		mg/kg	0.70	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Thallium, Total	ND		mg/kg	0.56	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Vanadium, Total	100		mg/kg	1.4	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM
Zinc, Total	66		mg/kg	14	--	10	11/30/20 15:47	12/01/20 15:12	EPA 3050B	97,6020B	AM



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab for sample(s): 14,17,24,29,34,38 Batch: WG1436715-1									
Cadmium, Total	ND	umoles/g	0.008897	--	5	11/21/20 10:44	11/23/20 12:35	1,6020B	AM
Copper, Total	ND	umoles/g	0.078691	--	5	11/21/20 10:44	11/23/20 12:35	1,6020B	AM
Lead, Total	ND	umoles/g	0.048263	--	5	11/21/20 10:44	11/23/20 12:35	1,6020B	AM
Nickel, Total	ND	umoles/g	0.170358	--	5	11/21/20 10:44	11/23/20 12:35	1,6020B	AM
Zinc, Total	ND	umoles/g	0.152975	--	5	11/21/20 10:44	11/23/20 12:35	1,6020B	AM

### Prep Information

Digestion Method: 36,-

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1438779-1									
Antimony, Dissolved	ND	mg/l	0.0040	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Arsenic, Dissolved	ND	mg/l	0.0005	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Barium, Dissolved	ND	mg/l	0.0005	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Beryllium, Dissolved	ND	mg/l	0.0005	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Cadmium, Dissolved	ND	mg/l	0.0005	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Chromium, Dissolved	ND	mg/l	0.0010	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Lead, Dissolved	ND	mg/l	0.0010	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Nickel, Dissolved	ND	mg/l	0.0020	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Selenium, Dissolved	ND	mg/l	0.005	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Silver, Dissolved	ND	mg/l	0.0005	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Thallium, Dissolved	ND	mg/l	0.0005	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Vanadium, Dissolved	ND	mg/l	0.0050	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM
Zinc, Dissolved	ND	mg/l	0.0100	--	1	11/30/20 09:22	11/30/20 15:39	97,6020B	AM

### Prep Information

Digestion Method: EPA 3005A



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1438780-1									
Mercury, Dissolved	ND	mg/l	0.0002	--	1	11/30/20 09:26	11/30/20 14:41	97,7470A	EW

### Prep Information

Digestion Method: EPA 7470A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s): 12-31 Batch: WG1438827-1									
Antimony, Total	ND	mg/kg	1.6	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Arsenic, Total	ND	mg/kg	0.50	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Barium, Total	ND	mg/kg	3.0	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Beryllium, Total	ND	mg/kg	0.30	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Cadmium, Total	ND	mg/kg	0.20	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Chromium, Total	ND	mg/kg	2.0	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Lead, Total	ND	mg/kg	0.60	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Nickel, Total	ND	mg/kg	1.0	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Selenium, Total	ND	mg/kg	2.0	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Silver, Total	ND	mg/kg	0.50	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Thallium, Total	ND	mg/kg	0.40	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Vanadium, Total	ND	mg/kg	1.0	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM
Zinc, Total	ND	mg/kg	10	--	10	12/01/20 15:01	12/01/20 16:59	97,6020B	AM

### 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): 12-31 Batch: WG1438828-1									
Mercury, Total	ND	mg/kg	0.083	--	1	12/01/20 15:19	12/01/20 17:35	97,7471B	VW



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s): 32-43 Batch: WG1438829-1									
Antimony, Total	ND	mg/kg	1.6	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Arsenic, Total	ND	mg/kg	0.50	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Barium, Total	ND	mg/kg	3.0	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Beryllium, Total	ND	mg/kg	0.30	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Cadmium, Total	ND	mg/kg	0.20	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Chromium, Total	ND	mg/kg	2.0	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Lead, Total	ND	mg/kg	0.60	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Nickel, Total	ND	mg/kg	1.0	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Selenium, Total	ND	mg/kg	2.0	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Silver, Total	ND	mg/kg	0.50	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Thallium, Total	ND	mg/kg	0.20	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Vanadium, Total	ND	mg/kg	1.0	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM
Zinc, Total	ND	mg/kg	10	--	10	11/30/20 15:47	12/01/20 12:49	97,6020B	AM

### 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): 32-43 Batch: WG1438830-1									
Mercury, Total	ND	mg/kg	0.083	--	1	11/30/20 15:55	11/30/20 19:07	97,7471B	EW

### Prep Information

Digestion Method: EPA 7471B



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab for sample(s): 14,17,24,29,34,38 Batch: WG1439657-1									
Sulfide, Acid Volatile	ND	umoles/gm	0.624	--	1			36,-	TM

### Prep Information

Digestion Method: 36,-

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 Batch: WG1436715-2 SRM Lot Number: A2METSPIKE								
Cadmium, Total	104		-		80-120	-		20
Copper, Total	102		-		80-120	-		20
Lead, Total	104		-		80-120	-		20
Nickel, Total	104		-		80-120	-		20
Zinc, Total	108		-		80-120	-		20
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1438779-2 WG1438779-3								
Antimony, Dissolved	89		99		80-120	11		20
Arsenic, Dissolved	101		103		80-120	2		20
Barium, Dissolved	101		105		80-120	4		20
Beryllium, Dissolved	99		102		80-120	3		20
Cadmium, Dissolved	111		114		80-120	3		20
Chromium, Dissolved	97		99		80-120	2		20
Lead, Dissolved	99		102		80-120	3		20
Nickel, Dissolved	95		96		80-120	1		20
Selenium, Dissolved	102		106		80-120	4		20
Silver, Dissolved	103		105		80-120	2		20
Thallium, Dissolved	97		99		80-120	2		20
Vanadium, Dissolved	97		95		80-120	2		20
Zinc, Dissolved	110		109		80-120	1		20



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
<b>MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1438780-2 WG1438780-3</b>					
Mercury, Dissolved	99	101	80-120	2	20
<b>MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 Batch: WG1438827-2 WG1438827-3 SRM Lot Number: D109-540</b>					
Antimony, Total	164	168	19-250	2	30
Arsenic, Total	96	98	70-130	2	30
Barium, Total	100	102	75-125	2	30
Beryllium, Total	106	103	75-125	3	30
Cadmium, Total	102	104	75-125	2	30
Chromium, Total	104	99	70-130	5	30
Lead, Total	92	94	72-128	2	30
Nickel, Total	104	98	70-130	6	30
Selenium, Total	102	98	68-132	4	30
Silver, Total	98	94	68-131	4	30
Thallium, Total	89	100	68-131	12	30
Vanadium, Total	104	96	59-141	8	30
Zinc, Total	95	97	70-130	2	30
<b>MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 Batch: WG1438828-2 WG1438828-3 SRM Lot Number: D109-540</b>					
Mercury, Total	100	109	60-140	9	30



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
<b>MCP Total Metals - Mansfield Lab Associated sample(s): 32-43 Batch: WG1438829-2 WG1438829-3 SRM Lot Number: D109-540</b>					
Antimony, Total	172	164	19-250	5	30
Arsenic, Total	115	109	70-130	5	30
Barium, Total	113	109	75-125	4	30
Beryllium, Total	112	106	75-125	6	30
Cadmium, Total	117	102	75-125	14	30
Chromium, Total	110	104	70-130	6	30
Lead, Total	108	108	72-128	0	30
Nickel, Total	108	102	70-130	6	30
Selenium, Total	120	114	68-132	5	30
Silver, Total	119	113	68-131	5	30
Thallium, Total	107	98	68-131	9	30
Vanadium, Total	109	105	59-141	4	30
Zinc, Total	114	108	70-130	5	30
<b>MCP Total Metals - Mansfield Lab Associated sample(s): 32-43 Batch: WG1438830-2 WG1438830-3 SRM Lot Number: D109-540</b>					
Mercury, Total	86	94	60-140	9	30
<b>Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 Batch: WG1439657-2</b>					
Sulfide, Acid Volatile	98	-	80-120	-	20



### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 QC Batch ID: WG1436715-3 QC Sample: L2050541-14 Client ID: SL1-3 (0-0.5')												
Cadmium, Total	ND	0.042527	0.042193	99		-	-		75-125	-		20
Copper, Total	0.324969	0.150299	0.519762	130	Q	-	-		75-125	-		20
Lead, Total	0.194830	0.230695	1.04860	370	Q	-	-		75-125	-		20
Nickel, Total	0.092356	0.162692	0.269029	108		-	-		75-125	-		20
Zinc, Total	0.567617	0.731222	1.32459	104		-	-		75-125	-		20
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1438779-4 WG1438779-5 QC Sample: L2050541-09 Client ID: SW-9												
Antimony, Dissolved	ND	0.5	0.5530	111		0.5799	116		75-125	5		20
Arsenic, Dissolved	ND	0.12	0.1358	113		0.1215	101		75-125	11		20
Barium, Dissolved	ND	2	2.105	105		2.052	103		75-125	3		20
Beryllium, Dissolved	ND	0.05	0.0474	95		0.0479	96		75-125	1		20
Cadmium, Dissolved	ND	0.051	0.0551	108		0.0514	101		75-125	7		20
Chromium, Dissolved	ND	0.2	0.2004	100		0.1998	100		75-125	0		20
Lead, Dissolved	ND	0.51	0.5367	105		0.5136	101		75-125	4		20
Nickel, Dissolved	ND	0.5	0.4640	93		0.4307	86		75-125	7		20
Selenium, Dissolved	ND	0.12	0.124	103		0.106	88		75-125	16		20
Silver, Dissolved	ND	0.05	0.0516	103		0.0472	94		75-125	9		20
Thallium, Dissolved	ND	0.12	0.1161	97		0.1039	86		75-125	11		20
Vanadium, Dissolved	ND	0.5	0.5085	102		0.4612	92		75-125	10		20
Zinc, Dissolved	ND	0.5	0.5083	102		0.4672	93		75-125	8		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1438780-4 WG1438780-5 QC Sample: L2050541-09 Client ID: SW-9									
Mercury, Dissolved	ND	0.005	0.0051	102	0.0049	99	75-125	3	20
MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 QC Batch ID: WG1438827-4 WG1438827-5 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')									
Antimony, Total	2.2	48.3	50	99	52	99	75-125	4	35
Arsenic, Total	13	11.6	27	121	24	91	75-125	12	35
Barium, Total	17	193	240	115	240	111	75-125	0	35
Beryllium, Total	0.62	4.83	5.6	103	5.6	99	75-125	0	35
Cadmium, Total	ND	4.93	5.4	110	5.7	112	75-125	5	35
Chromium, Total	16	19.3	40	124	42	130	Q 75-125	5	35
Lead, Total	47	49.3	100	108	100	104	75-125	0	35
Nickel, Total	46	48.3	99	110	88	84	75-125	12	35
Selenium, Total	ND	11.6	12	103	12	100	75-125	0	35
Silver, Total	ND	29	30	103	32	106	75-125	6	35
Thallium, Total	ND	11.6	12	103	13	108	75-125	8	35
Vanadium, Total	160	48.3	290	269	Q 200	80	75-125	37	Q 35
Zinc, Total	82	48.3	130	99	130	96	75-125	0	35

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 QC Batch ID: WG1438827-7 WG1438827-8 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')									
Antimony, Total	ND	56.9	58	102	57	105	75-125	2	35
Arsenic, Total	16	13.6	32	117	32	123	75-125	0	35
Barium, Total	21	228	250	101	250	106	75-125	0	35
Beryllium, Total	0.60	5.69	6.1	97	5.9	98	75-125	3	35
Cadmium, Total	ND	5.8	6.1	105	5.9	107	75-125	3	35
Chromium, Total	24	22.8	43	84	44	92	75-125	2	35
Lead, Total	580	58	150	0	Q 150	0	Q 75-125	0	35
Nickel, Total	170	56.9	190	35	Q 130	0	Q 75-125	38	Q 35
Selenium, Total	ND	13.6	14	102	14	108	75-125	0	35
Silver, Total	ND	34.1	36	105	34	105	75-125	6	35
Thallium, Total	ND	13.6	14	102	13	100	75-125	7	35
Vanadium, Total	480	56.9	450	0	Q 510	55	Q 75-125	13	35
Zinc, Total	190	56.9	190	0	Q 200	18	Q 75-125	5	35
MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 QC Batch ID: WG1438828-4 WG1438828-5 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')									
Mercury, Total	ND	0.182	0.244	134	Q 0.244	134	Q 75-125	0	35
MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 QC Batch ID: WG1438828-6 WG1438828-7 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')									
Mercury, Total	ND	0.215	0.282	131	Q 0.241	133	Q 75-125	16	35

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limits</b>
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 QC Batch ID: WG1439657-3 QC Sample: L2050541-14 Client ID: SL1-3 (0-0.5')									
Sulfide, Acid Volatile	ND	2.028	1.60	79	-	-	75-125	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR

**Project Number:** 414883

**Lab Number:** L2050541

**Report Date:** 12/04/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 QC Batch ID: WG1436715-4 QC Sample: L2050541-14 Client ID: SL1-3 (0-0.5')						
Cadmium, Total	ND	ND	umoles/g	NC		20
Copper, Total	0.324969	0.384555	umoles/g	17		20
Lead, Total	0.194830	0.252061	umoles/g	26	Q	20
Nickel, Total	0.092356	0.106661	umoles/g	14		20
Zinc, Total	0.567617	0.632804	umoles/g	11		20
Acid Volatile Sulfide w/Simultaneously Extracted Metals - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 QC Batch ID: WG1439657-4 QC Sample: L2050541-14 Client ID: SL1-3 (0-0.5')						
Sulfide, Acid Volatile	ND	ND	umoles/gm	NC		20

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Serial Dilution  
 Analysis  
 Batch Quality Control**

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 QC Batch ID: WG1438827-6 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')						
Lead, Total	47	48	mg/kg	2		20
Nickel, Total	46	47	mg/kg	2		20
MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 QC Batch ID: WG1438827-6 QC Sample: L2050541-16 Client ID: SL1-5 (0-0.5')						
Vanadium, Total	160	170	mg/kg	6		20
MCP Total Metals - Mansfield Lab Associated sample(s): 12-31 QC Batch ID: WG1438827-9 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')						
Lead, Total	580	290	mg/kg	50	Q	20
Nickel, Total	170	170	mg/kg	0		20
Vanadium, Total	480	480	mg/kg	0		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-12  
**Client ID:** SL1-1 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:00  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	73.6		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-13  
**Client ID:** SL1-2 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:32  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	75.1		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-14  
**Client ID:** SL1-3 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:52  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	8.52		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Rep2)	10.6		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Average)	9.58		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	69.3		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-15  
**Client ID:** SL1-4 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:45  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	76.5		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-16  
**Client ID:** SL1-5 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:50  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	79.0		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-17  
**Client ID:** SL1-6 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:20  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	10.7		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Rep2)	10.3		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Average)	10.5		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	83.0		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-18  
 Client ID: SL1-7 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 12:05  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	81.0		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-19  
**Client ID:** SL1-8 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:15  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	85.0		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-20  
**Client ID:** SL1-9 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:30  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	84.8		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-21  
**Client ID:** SL1-10 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 11:24  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	64.2		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-22  
**Client ID:** SL2-1 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:05  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	63.4		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-23  
**Client ID:** SL2-2 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:45  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	56.7		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-24  
**Client ID:** SL2-3 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:48  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	8.21		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Rep2)	9.24		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Average)	8.72		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	56.8		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-25  
**Client ID:** SL2-4 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:50  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	73.1		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-26  
**Client ID:** SL2-5 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:35  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	69.6		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-27  
**Client ID:** SL2-6 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:35  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	67.2		%	0.100	NA	1	-	11/19/20 22:20	121,2540G	TR



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-28  
**Client ID:** SL2-7 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:30  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	78.4		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-29  
**Client ID:** SL2-8 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:00  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	2.94		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Rep2)	2.87		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Average)	2.90		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	84.4		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-30  
**Client ID:** SL2-9 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:15  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	72.5		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-31  
**Client ID:** SL2-10 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:11  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	72.0		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-32  
**Client ID:** SL3-1 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:35  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	67.7		%	0.100	NA	1	-	11/17/20 09:33	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-33  
**Client ID:** SL3-2 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:30  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	63.5		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-34  
**Client ID:** SL3-3 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:00  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	4.48		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Rep2)	4.20		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Average)	4.34		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	59.8		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

Lab ID: L2050541-35  
 Client ID: SL3-4 (0-0.5')  
 Sample Location: 6 BRIDGE STREET, WEYMOUTH, MA

Date Collected: 11/13/20 14:55  
 Date Received: 11/13/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	65.6		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-36  
**Client ID:** SL3-5 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:51  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	70.9		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI





**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-37  
**Client ID:** SL3-6 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:40  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	54.8		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-38  
**Client ID:** SL3-7 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 15:10  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Organic Carbon - Mansfield Lab</b>										
Total Organic Carbon (Rep1)	4.63		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Rep2)	4.14		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Average)	4.38		%	0.050	--	1	-	11/30/20 11:14	13,-	SP
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	59.1		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-39  
**Client ID:** SL3-8 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:33  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	61.8		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-40  
**Client ID:** SL3-9 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:11  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	68.4		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-41  
**Client ID:** SL3-10 (0-0.5')  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 14:09  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	78.6		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-42  
**Client ID:** DUP-1  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 12:06  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	85.1		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**SAMPLE RESULTS**

**Lab ID:** L2050541-43  
**Client ID:** DUP-2  
**Sample Location:** 6 BRIDGE STREET, WEYMOUTH, MA

**Date Collected:** 11/13/20 13:51  
**Date Received:** 11/13/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	70.5		%	0.100	NA	1	-	11/17/20 10:03	121,2540G	RI



Project Name: ENBRIDGE WEYMOUTH COMPRESSOR

Lab Number: L2050541

Project Number: 414883

Report Date: 12/04/20

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

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab for sample(s): 14,17,24,29,34,38 Batch: WG1437504-1									
Total Organic Carbon (Rep1)	ND	%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Rep2)	ND	%	0.050	--	1	-	11/30/20 11:14	13,-	SP
Total Organic Carbon (Average)	ND	%	0.050	--	1	-	11/30/20 11:14	13,-	SP



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 Batch: WG1437504-2								
Total Organic Carbon (Rep1)	121		-		75-125	-		25
Total Organic Carbon (Rep2)	120		-		75-125	-		25
Total Organic Carbon (Average)	120		-		75-125	-		25

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 (0-0.5')												
				QC Batch ID: WG1437504-4				QC Sample: L2050541-14		Client ID: SL1-3		
Total Organic Carbon (Rep1)	8.52	1.61	9.30	48	Q	-	-		75-125	-		25
Total Organic Carbon (Rep2)	10.6	1.21	11.1	41	Q	-	-		75-125	-		25



## Lab Duplicate Analysis

*Batch Quality Control*

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 12-26,28-32 QC Batch ID: WG1435109-1 QC Sample: L2050541-26 Client ID: SL2-5 (0-0.5')						
Solids, Total	69.6	68.2	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 33-43 QC Batch ID: WG1435116-1 QC Sample: L2050541-33 Client ID: SL3-2 (0-0.5')						
Solids, Total	63.5	62.4	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 27 QC Batch ID: WG1436401-1 QC Sample: L2050541-27 Client ID: SL2-6 (0-0.5')						
Solids, Total	67.2	69.8	%	4		20
Total Organic Carbon - Mansfield Lab Associated sample(s): 14,17,24,29,34,38 QC Batch ID: WG1437504-3 QC Sample: L2050541-14 Client ID: SL1-3 (0-0.5')						
Total Organic Carbon (Rep1)	8.52	8.64	%	1		25
Total Organic Carbon (Rep2)	10.6	7.72	%	31	Q	25
Total Organic Carbon (Average)	9.58	8.18	%	16		25

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR**Lab Number:** L2050541**Project Number:** 414883**Report Date:** 12/04/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent
B	Absent
C	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>
L2050541-01A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-01B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-01C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-01X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-BE-6020S-10(180),MCP-PB-6020S-10(180),MCP-7470S-10(28),MCP-SB-6020S-10(180),MCP-TL-6020S-10(180),MCP-SE-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-NI-6020S-10(180),MCP-AS-6020S-10(180),MCP-AG-6020S-10(180),MCP-ZN-6020S-10(180),MCP-V-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-02A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-02B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-02C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-02X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-PB-6020S-10(180),MCP-BE-6020S-10(180),MCP-SB-6020S-10(180),MCP-7470S-10(28),MCP-TL-6020S-10(180),MCP-CD-6020S-10(180),MCP-BA-6020S-10(180),MCP-SE-6020S-10(180),MCP-NI-6020S-10(180),MCP-AS-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-AG-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-03A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-03B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-03C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Serial\_No:** 12042011:31  
**Lab Number:** L2050541  
**Report Date:** 12/04/20

**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>
L2050541-03X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-PB-6020S-10(180),MCP-BE-6020S-10(180),MCP-SB-6020S-10(180),MCP-7470S-10(28),MCP-TL-6020S-10(180),MCP-SE-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-ZN-6020S-10(180),MCP-V-6020S-10(180),MCP-AG-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-04A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-04B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-04C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-04X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-BE-6020S-10(180),MCP-PB-6020S-10(180),MCP-7470S-10(28),MCP-SB-6020S-10(180),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-SE-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-AG-6020S-10(180),MCP-ZN-6020S-10(180),MCP-V-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-05A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-05B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-05C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-05X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-PB-6020S-10(180),MCP-BE-6020S-10(180),MCP-7470S-10(28),MCP-SB-6020S-10(180),MCP-TL-6020S-10(180),MCP-CD-6020S-10(180),MCP-BA-6020S-10(180),MCP-SE-6020S-10(180),MCP-NI-6020S-10(180),MCP-AS-6020S-10(180),MCP-AG-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-06A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-06B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-06C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-06X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-BE-6020S-10(180),MCP-PB-6020S-10(180),MCP-SB-6020S-10(180),MCP-7470S-10(28),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-SE-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-AG-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-07A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Serial\_No:** 12042011:31  
**Lab Number:** L2050541  
**Report Date:** 12/04/20

**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>
L2050541-07B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-07C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-07X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-PB-6020S-10(180),MCP-BE-6020S-10(180),MCP-7470S-10(28),MCP-SB-6020S-10(180),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-SE-6020S-10(180),MCP-NI-6020S-10(180),MCP-AS-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-AG-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-08A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-08B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-08C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-08X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-BE-6020S-10(180),MCP-PB-6020S-10(180),MCP-SB-6020S-10(180),MCP-7470S-10(28),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-SE-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-AG-6020S-10(180),MCP-ZN-6020S-10(180),MCP-V-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-09A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-09A1	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-09A2	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-09B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-09B1	Glass 250ml/8oz unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-09B2	Glass 250ml/8oz unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-09C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-09C1	Glass 250ml/8oz unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-09C2	Glass 250ml/8oz unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-09X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-PB-6020S-10(180),MCP-BE-6020S-10(180),MCP-SB-6020S-10(180),MCP-7470S-10(28),MCP-TL-6020S-10(180),MCP-SE-6020S-10(180),MCP-CD-6020S-10(180),MCP-BA-6020S-10(180),MCP-NI-6020S-10(180),MCP-AS-6020S-10(180),MCP-AG-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-10A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-

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**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2050541-10B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-10C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-10X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-BE-6020S-10(180),MCP-PB-6020S-10(180),MCP-SB-6020S-10(180),MCP-7470S-10(28),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-SE-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-AG-6020S-10(180),MCP-ZN-6020S-10(180),MCP-V-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-11A	Plastic 250ml unpreserved	C	8	8	2.6	Y	Absent		-
L2050541-11B	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-11C	Amber 250ml unpreserved	C	8	8	2.6	Y	Absent		A2-MCPPAH-8270SIM-10(7)
L2050541-11X	Plastic 120ml HNO3 preserved Filtrates	C	NA		2.6	Y	Absent		MCP-BE-6020S-10(180),MCP-PB-6020S-10(180),MCP-SB-6020S-10(180),MCP-7470S-10(28),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-AG-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-CR-6020S-10(180)
L2050541-12A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-CD-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-12B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-12C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-13A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-13B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-13C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-14A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		TS(7)

\*Values in parentheses indicate holding time in days



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<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>
L2050541-14B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14)
L2050541-14C	Vial Large Septa unpreserved (4oz)	B	NA		2.7	Y	Absent		A2-CU-SEM(14),A2-CD-SEM(14),A2-AVS(14),A2-SEM/AVSRATIO(14),A2-PB-SEM(14),A2-NI-SEM(14),A2-ZN-SEM(14)
L2050541-14D	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),A2-TOC-LK-2REPS(14),MCP-ZN-6020T-10(180),A2-MCPPAH-8270SIM-10(14),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-15A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-15B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-15C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-16A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		TS(7)
L2050541-16B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-16C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14)
L2050541-16D	Glass 250ml/8oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-16E	Glass 250ml/8oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-17A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		TS(7)
L2050541-17B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14)
L2050541-17C	Vial Large Septa unpreserved (4oz)	B	NA		2.7	Y	Absent		A2-CU-SEM(14),A2-CD-SEM(14),A2-SEM/AVSRATIO(14),A2-AVS(14),A2-PB-SEM(14),A2-NI-SEM(14),A2-ZN-SEM(14)



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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>
L2050541-17D	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),A2-MCPPAH-8270SIM-10(14),A2-TOC-LK-2REPS(14),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-18A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-18B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-18C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-19A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-19B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-19C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-20A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-20B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-20C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),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>
L2050541-21A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-21B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-21C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-22A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-22B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-22C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-23A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-23B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-23C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-24A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		TS(7)
L2050541-24B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14)
L2050541-24C	Vial Large Septa unpreserved (4oz)	B	NA		2.7	Y	Absent		A2-CU-SEM(14),A2-CD-SEM(14),A2-AVS(14),A2-SEM/AVSRATIO(14),A2-NI-SEM(14),A2-ZN-SEM(14),A2-PB-SEM(14)

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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>
L2050541-24D	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),A2-MCPPAH-8270SIM-10(14),A2-TOC-LK-2REPS(14),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-25A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-CD-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-25B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-25C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-26A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		TS(7)
L2050541-26B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-26C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14)
L2050541-26D	Glass 250ml/8oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-26E	Glass 250ml/8oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-27A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-27B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-27C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)

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**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2050541-28A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-28B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-28C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-29A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		TS(7)
L2050541-29B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14)
L2050541-29C	Vial Large Septa unpreserved (4oz)	B	NA		2.7	Y	Absent		A2-CU-SEM(14),A2-CD-SEM(14),A2-SEM/AVSRATIO(14),A2-AVS(14),A2-NI-SEM(14),A2-PB-SEM(14),A2-ZN-SEM(14)
L2050541-29D	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),A2-MCPPAH-8270SIM-10(14),A2-TOC-LK-2REPS(14),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-AG-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-30A	Plastic 2oz unpreserved for TS	B	NA		2.7	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-AG-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-30B	Glass 60mL/2oz unpreserved	B	NA		2.7	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-30C	Glass 120ml/4oz unpreserved	B	NA		2.7	Y	Absent		EPH-20(14),TS(7)
L2050541-31A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-31B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)

\*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>
L2050541-31C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-32A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-32B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-32C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-33A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-33B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-33C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-33D	Vial Large Septa unpreserved (4oz)	C	NA		2.6	Y	Absent		EPH-20(14)
L2050541-34A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		TS(7)
L2050541-34B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14)
L2050541-34C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),A2-CU-SEM(14),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),A2-CD-SEM(14),MCP-ZN-6020T-10(180),A2-MCPPAH-8270SIM-10(14),A2-AVS(14),A2-SEM/AVSRATIO(14),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),A2-PB-SEM(14),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180),A2-NI-SEM(14),A2-ZN-SEM(14),MCP-PB-6020T-10(180)
L2050541-34X	Glass 60ml unpreserved split	C	NA		2.6	Y	Absent		A2-TOC-LK-2REPS(14)

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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>
L2050541-35A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-35B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-35C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-36A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-36B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-36C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-37A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180)
L2050541-37B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-37C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-38A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		TS(7)
L2050541-38B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14)
L2050541-38C	Vial Large Septa unpreserved (4oz)	C	NA		2.6	Y	Absent		A2-CU-SEM(14),A2-CD-SEM(14),A2-AVS(14),A2-SEM/AVSRATIO(14),A2-ZN-SEM(14),A2-NI-SEM(14),A2-PB-SEM(14)

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**Report Date:** 12/04/20

**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>
L2050541-38D	Metals Only-Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),A2-MCPPAH-8270SIM-10(14),MCP-7471T-10(28),MCP-ZN-6020T-10(180),A2-TOC-LK-2REPS(14),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180),MCP-BA-6020T-10(180)
L2050541-39A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-SB-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-39B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-39C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-40A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-7471T-10(28),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-CD-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-40B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-40C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-41A	Plastic 2oz unpreserved for TS	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-CR-6020T-10(180),MCP-BE-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-AG-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-41B	Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		A2-MCPPAH-8270SIM-10(14)
L2050541-41C	Glass 120ml/4oz unpreserved	C	NA		2.6	Y	Absent		EPH-20(14),TS(7)
L2050541-42A	Glass 60ml unpreserved split	C	NA		2.6	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>
L2050541-42B	Glass 250ml/8oz unpreserved	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),A2-MCPPAH-8270SIM-10(14),MCP-7471T-10(28),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-CD-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180)
L2050541-43A	Glass 60ml unpreserved split	C	NA		2.6	Y	Absent		TS(7)
L2050541-43B	Glass 250ml/8oz unpreserved	C	NA		2.6	Y	Absent		MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-TL-6020T-10(180),MCP-ZN-6020T-10(180),MCP-7471T-10(28),A2-MCPPAH-8270SIM-10(14),MCP-NI-6020T-10(180),MCP-AS-6020T-10(180),MCP-AG-6020T-10(180),MCP-SE-6020T-10(180),MCP-CD-6020T-10(180),MCP-BA-6020T-10(180),MCP-SB-6020T-10(180),MCP-PB-6020T-10(180)

\*Values in parentheses indicate holding time in days





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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.

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

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

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

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

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

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

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

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

**Data Qualifiers**

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

**Project Name:** ENBRIDGE WEYMOUTH COMPRESSOR  
**Project Number:** 414883

**Lab Number:** L2050541  
**Report Date:** 12/04/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 13 Determination of Total Organic Carbon in Sediment. U.S. EPA, Region II. July 27, 1988.
- 36 Draft Analytical Method for Determination of Acid Volatile Sulfide and Selected Simultaneously Extractable Metals in Sediment. PB93-155901, 1991.
- 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.
- 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.

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

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; 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.

**EPA TO-12** Non-methane organics

**EPA 3C** Fixed gases

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

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

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

### 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.**

#### 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 2 OF 6

## Project Information

Project Name: Enbridge Weymouth Compressor

Project Location: 6 Bridge Street, Weymouth, MA

Project #: 414883

Project Manager: Jim Doherty

ALPHA Quote #:

## Turn-Around Time

Standard  Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Westborough, MA Mansfield, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3288

## Client Information

Client: TRC  
 Address: 650 Suffolk Street  
 Lowell, MA 01854  
 Phone: 978-970-5600

Fax:  These samples have been Previously analyzed by Alpha  
 Email: jdoherty@trccompanies.com

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 11/13/20

ALPHA Job #: <sup>CP</sup> H122050541

## Report Information Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

## Billing Information

Same as Client info PO #: 159499

## Regulatory Requirements/Report Limits

State/Fed Program: NOAA Criteria: SQUIRTS - marine chronic awqc

## ANALYSIS

MCP 14 Metals	PAHs via SIM														
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SAMPLE HANDLING  
 Filtration  
 Done  
 Not Needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
S0541-01	SW-1	11/12/20	1100	Water	SH
-02	SW-2	11/12/20	1108	Water	↓
-03	SW-3	11/12/20	1111	Water	
-04	SW-4	11/12/20	1237	Water	
-05	SW-5	11/12/20	1240	Water	
-06	SW-6	11/12/20	1244	Water	
-07	SW-7	11/12/20	1248	Water	
-08	SW-8	11/12/20	1318	Water	
-08	SW-9	11/12/20	1322	Water	
-10	SW-10	11/12/20	1326	Water	

MS/MSD

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
<i>Scott He</i>	11-13-20/1715	<i>ACC - AAC</i>	11/13/20 17:15
<i>ACC - AAC</i>	11/13/20	<i>Bezo AAC</i>	13-Nov-20 21:52
<i>Bezo AAC</i>	13-Nov-20 22:52	<i>Bezo AAC</i>	11/13/20 22:52

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-010-NJ (rev. 5-JAN-12)



# CHAIN OF CUSTODY

PAGE 2 OF 6

## Project Information

Project Name: Enbridge Weymouth Compressor

Project Location: 6 Bridge Street, Weymouth, MA

Project #: 414883

Project Manager: Jim Doherty

ALPHA Quote #:

## Turn-Around Time

Standard  Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Westborough, MA Mansfield, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3288

## Client Information

Client: TRC  
 Address: 650 Suffolk Street  
 Lowell, MA 01854  
 Phone: 978-970-5600

Fax:  
 Email: jdoherly@trccompanies.com  
 These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 11/13/20

ALPHA Job #: L205054

## Report Information Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

## Billing Information

Same as Client info PO #: 159499

## Regulatory Requirements/Report Limits

State/Fed Program

Criteria

NOAA

SQUIRTS - marine chronic awqc

## ANALYSIS

MCP 14 Metals	PAHs via SIM														
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**SAMPLE HANDLING**  
**Filtration**  
 Done  
 Not Needed  
 Lab to do  
**Preservation**  
 Lab to do  
 (Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
50571-11	CSW-1 DUP-11	11/13/20	1241	Water	SH
	CSW-2	11/11/20		Water	
	CSW-3	11/11/20		Water	

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
Scott Ste	11-13-20/1715	MCL - Arc	11/13/20 17:15
Arc - Arc	11/13/20	Bezo AA	13-Nov-20 21:52
Bezo AA	13-Nov-20 22:52		11/13/20 22:52

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



# CHAIN OF CUSTODY

PAGE 3 OF 6

## Project Information

Project Name: Enbridge Weymouth Compressor

Project Location: 6 Bridge Street, Weymouth, MA

Project #: 414883

Project Manager: Jim Doherty

ALPHA Quote #:

## Turn-Around Time

Standard  Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Westborough, MA Mansfield, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3288

## Client Information

Client: TRC  
 Address: 650 Suffolk Street  
 Lowell, MA 01854

Phone: 978-970-5600

Fax:  
 Email: jdoherty@trccompanies.com

These samples have been Previously analyzed by Alpha

Date Rec'd in Lab: 11/13/20

ALPHA Job #: L205054

## Report Information Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

## Billing Information

Same as Client info PO #: 159499

## Regulatory Requirements/Report Limits

State/Fed Program: NOAA Criteria: SQUIRTS - ER-L

## ANALYSIS

	MCP 14 Metals	EPH Fracs	PAHs via SIM	TOC	AVS/SEM												
5054(-12)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-13	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-17	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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-17	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-19	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
#1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE HANDLING**  
 Filtration  
 Done  
 Not Needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

MS/MSD

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
5054(-12)	SL1-1 (0-0.5')	11/12/20	1300	Sediment	SH
-13	SL1-2 (0-0.5')	11/12/20	1132	Sediment	GP
-17	SL1-3 (0-0.5')	11/12/20	1152	Sediment	SH
-15	SL1-4 (0-0.5')	11/12/20	1145	Sediment	GP
-16	SL1-5 (0-0.5')	11/12/20	1150	Sediment	GP
-17	SL1-6 (0-0.5')	11/12/20	1220	Sediment	SH
-18	SL1-7 (0-0.5')	11/12/20	1205	Sediment	GP
-19	SL1-8 (0-0.5')	11/12/20	1215	Sediment	GP
-20	SL1-9 (0-0.5')	11/12/20	1230	Sediment	JPS
#1	SL1-10 (0-0.5')	11/12/20	1124	Sediment	GP

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
<i>Scott He</i>	11-13-20/1715	<i>AKL - AAR</i>	11/13/20 17:15
<i>AKL - AAR</i>	11/13/20	<i>AKL - AAR</i>	11/13/20 21:52
<i>JPS Berris AAR</i>	11-13-20 22:52	<i>JPS Berris AAR</i>	11/13/20 22:53

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.





# CHAIN OF CUSTODY

PAGE 4 OF 6

## Project Information

Project Name: Enbridge Weymouth Compressor

Project Location: 6 Bridge Street, Weymouth, MA

Project #: 414883

Project Manager: Jim Doherty

ALPHA Quote #:

## Turn-Around Time

Standard  Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Westborough, MA Mansfield, MA  
 TEL: 508-896-9220 TEL: 508-822-9300  
 FAX: 508-896-9193 FAX: 508-822-3288

## Client Information

Client: TRC  
 Address: 650 Suffolk Street  
 Lowell, MA 01854  
 Phone: 978-970-5600

Fax: Email: [jdoherty@trccompanies.com](mailto:jdoherty@trccompanies.com)

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 11/13/20

ALPHA Job #: 2050541

## Report Information Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

## Billing Information

Same as Client info PO #: 159499

## Regulatory Requirements/Report Limits

State/Fed Program: NOAA Criteria: SQUIRTS - ER-L

## ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	MCP 14 Metals	EPH Fracs	PAHs via SIM	TOC	AVS/SEM								
50541-22	SL2-1 (0-0.5')	11/12/20	1305	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-23	SL2-2 (0-0.5')	11/12/20	1345	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-24	SL2-3 (0-0.5')	11/12/20	1448	Sediment	SH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-25	SL2-4 (0-0.5')	11/12/20	1350	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-26	SL2-5 (0-0.5')	11/12/20	1385	Sediment	JPS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-27	SL2-6 (0-0.5')	11/12/20	1335	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-28	SL2-7 (0-0.5')	11/12/20	1330	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-29	SL2-8 (0-0.5')	11/12/20	1400	Sediment	SH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-30	SL2-9 (0-0.5')	11/12/20	1315	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-31	SL2-10 (0-0.5')	11/12/20	1311	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE HANDLING**  
 Filtration  
 Done  
 Not Needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

MS/MSD

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
50541-22	SL2-1 (0-0.5')	11/12/20	1305	Sediment	GP
-23	SL2-2 (0-0.5')	11/12/20	1345	Sediment	GP
-24	SL2-3 (0-0.5')	11/12/20	1448	Sediment	SH
-25	SL2-4 (0-0.5')	11/12/20	1350	Sediment	GP
-26	SL2-5 (0-0.5')	11/12/20	1385	Sediment	JPS
-27	SL2-6 (0-0.5')	11/12/20	1335	Sediment	GP
-28	SL2-7 (0-0.5')	11/12/20	1330	Sediment	GP
-29	SL2-8 (0-0.5')	11/12/20	1400	Sediment	SH
-30	SL2-9 (0-0.5')	11/12/20	1315	Sediment	GP
-31	SL2-10 (0-0.5')	11/12/20	1311	Sediment	GP

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
<i>Scott Hays</i>	11-13-20/1715	<i>ARC - AA</i>	11/13/20 17:15
<i>ARC - AA</i>	11/13/20	<i>Bezo AA</i>	13-Nov-20 21:52
<i>Bezo AA</i>	13-Nov-20 22:52	<i>[Signature]</i>	11/13/20 22:53

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-011-NJ (rev. 5-JAN-12)



# CHAIN OF CUSTODY

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## Project Information

Project Name: Enbridge Weymouth Compressor

Project Location: 6 Bridge Street, Weymouth, MA

Project #: 414883

Project Manager: Jim Doherty

ALPHA Quote #:

## Turn-Around Time

Standard  Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Westborough, MA Mansfield, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3288

## Client Information

Client: TRC  
 Address: 650 Suffolk Street  
 Lowell, MA 01854  
 Phone: 978-970-5600

Fax: Email: [jdoherty@trccompanies.com](mailto:jdoherty@trccompanies.com)

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 11/13/20

ALPHA Job #: L2050541

## Report Information Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

## Billing Information

Same as Client info PO #: 159499

## Regulatory Requirements/Report Limits

State/Fed Program: NOAA Criteria: SQUIRTS - ER-L

## ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	MCP 14 Metals	EPH Fracs	PAHs via SIM	TOC	AVS/SEM									
50541-32	SL3-1 (0-0.5')	11/12/20	1435	Sediment	JPS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-33	SL3-2 (0-0.5')	11/12/20	1530	Sediment	SH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-34	SL3-3 (0-0.5')	11/12/20	1500	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-35	SL3-4 (0-0.5')	11/12/20	1455	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-36	SL3-5 (0-0.5')	11/12/20	1451	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-37	SL3-6 (0-0.5')	11/12/20	1440	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-38	SL3-7 (0-0.5')	11/12/20	1510	Sediment	SH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-39	SL3-8 (0-0.5')	11/12/20	1433	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-40	SL3-9 (0-0.5')	11/12/20	1411	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-41	SL3-10 (0-0.5')	11/12/20	1409	Sediment	GP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE HANDLING**  
 Filtration  
 Done  
 Not Needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
50541-32	SL3-1 (0-0.5')	11/12/20	1435	Sediment	JPS
-33	SL3-2 (0-0.5')	11/12/20	1530	Sediment	SH
-34	SL3-3 (0-0.5')	11/12/20	1500	Sediment	GP
-35	SL3-4 (0-0.5')	11/12/20	1455	Sediment	GP
-36	SL3-5 (0-0.5')	11/12/20	1451	Sediment	GP
-37	SL3-6 (0-0.5')	11/12/20	1440	Sediment	GP
-38	SL3-7 (0-0.5')	11/12/20	1510	Sediment	SH
-39	SL3-8 (0-0.5')	11/12/20	1433	Sediment	GP
-40	SL3-9 (0-0.5')	11/12/20	1411	Sediment	GP
-41	SL3-10 (0-0.5')	11/12/20	1409	Sediment	GP

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
<i>Scott Hen</i>	11-13-20/1715	<i>ACL - AM</i>	11/13/20 17:15
<i>WCC - AM</i>	11/13/20	<i>Mr Bero AM</i>	13-Nov-20 2:52
<i>Mr Bero AM</i>	13-Nov-20 2252	<i>[Signature]</i>	11/13/20 22:53

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO 01-011-NAJ (rev. 5-1AN-12)



# CHAIN OF CUSTODY

PAGE **6** OF **6**

## Project Information

Project Name: Enbridge Weymouth Compressor

Project Location: 6 Bridge Street, Weymouth, MA

Project #: 414883

Project Manager: Jim Doherty

ALPHA Quote #:

## Turn-Around Time

Standard  Rush (ONLY IF PRE-APPROVED)

Due Date:      Time:

Westborough, MA      Mansfield, MA  
TEL: 508-898-9220      TEL: 508-822-9300  
FAX: 508-898-9193      FAX: 508-822-3288

## Client Information

Client: TRC  
Address: 650 Suffolk Street

Lowell, MA 01854

Phone: 978-970-5600

Fax:      Email: jdohertry@trccompanies.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: *11/13/20*

ALPHA Job #: *L2050591*

Report Information	Data Deliverables	Billing Information
<input type="checkbox"/> FAX	<input checked="" type="checkbox"/> EMAIL	<input type="checkbox"/> Same as Client info
<input type="checkbox"/> ADEX	<input type="checkbox"/> Add'l Deliverables	PO #: 159499

### Regulatory Requirements/Report Limits

State/Fed Program	Criteria
NOAA	SQUIRTS - marine chronic awqc

## ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	MCP 14 Metals	PAHs via SIM	SAMPLE HANDLING															TOTAL # BOTTLES						
		Date	Time					<input type="checkbox"/> Done <input type="checkbox"/> Not Needed <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do <i>(Please specify below)</i>																					
<i>50591-42</i>	<i>LCSW-1 DUP-1</i>	<i>11/11/20</i>	<i>1206</i>	<i>Water</i>	<i>GP</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<i>LCSW-2</i>	<i>11/11/20</i>		<i>Water</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>-43</i>	<i>LCSW-3</i>	<i>11/11/20</i>		<i>Water</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>-</i>	<i>DUP-2</i>		<i>1351</i>	<i>SED</i>	<i>GP</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING  
Filtration  
 Done  
 Not Needed  
 Lab to do  
 Preservation  
 Lab to do  
*(Please specify below)*

Container Type:      Preservative

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Relinquished By:	Date/Time	Received By:	Date/Time
<i>Scott Han</i>	<i>11-13-20 1715</i>	<i>[Signature]</i>	<i>11/13/20 1715</i>
<i>Wick - SR</i>	<i>11/13/20</i>	<i>[Signature]</i>	<i>13-Nov-20 152</i>
<i>[Signature]</i>	<i>13-Nov-20 2252</i>	<i>[Signature]</i>	<i>11/13/20 22:58</i>



## ANALYTICAL REPORT

Lab Number:	L2057799
Client:	TRC Environmental Consultants Wannalancit Mills 650 Suffolk Street Lowell, MA 01854
ATTN:	David Sullivan
Phone:	(978) 656-3565
Project Name:	ENBRIDGE
Project Number:	414883 4
Report Date:	01/08/21

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: ENBRIDGE

Project Number: 414883 4

Lab Number: L2057799

Report Date: 01/08/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2057799-01	DUP1	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 12:40	12/29/20
L2057799-02	DUP2	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 13:20	12/29/20
L2057799-03	SL1-8R 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 13:30	12/29/20
L2057799-04	SL1-8-N2 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 13:33	12/29/20
L2057799-05	SL1-8-S2 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 13:35	12/29/20
L2057799-06	SL1-8-E2 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 13:40	12/29/20
L2057799-07	SL1-8-W2 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 13:45	12/29/20
L2057799-08	SL2-10-S5 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:20	12/29/20
L2057799-09	SL2-10-S10 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:25	12/29/20
L2057799-10	SL2-10-S15 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:28	12/29/20
L2057799-11	SL2-10-W5 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:30	12/29/20
L2057799-12	SL2-10-W10 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:33	12/29/20
L2057799-13	SL2-10-W15 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:35	12/29/20
L2057799-14	SL2-10-E5 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:40	12/29/20
L2057799-15	SL2-10-E10 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:45	12/29/20
L2057799-16	SL2-10-N5 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:50	12/29/20
L2057799-17	SL2-10-N10 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:55	12/29/20
L2057799-18	SL2-10-N15 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 15:00	12/29/20

Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

**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)?	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:** ENBRIDGE**Lab Number:** L2057799**Project Number:** 414883 4**Report Date:** 01/08/21

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

### Case Narrative (continued)

#### Report Revision

January 08, 2021: At the client's request, the Total Arsenic recoveries have been removed from the WG1450489-4/-5 MS/MSD and the Total Chromium recoveries have been removed from the WG1450489-7/-8 MS/MSD.

January 05, 2021: This report has been amended to include the serial dilution analysis for Chromium on sample L2057799-07 and Arsenic on L2057799-14.

#### MCP Related Narratives

##### Total Metals

In reference to question H:

The WG1450489-5 MSD recovery, performed on L2057799-07, is outside the acceptance criteria for chromium (51%). Re-analysis of the MSD yielded an unacceptable recovery for chromium in the range of 30-74% or >125%. The LCS recovery is acceptable; therefore, no further action was taken.

The WG1450489-8 MSD recovery, performed on L2057799-14, is outside the acceptance criteria for arsenic (337%). Re-analysis of the MSD yielded an unacceptable recovery for arsenic in the range of 30-74% or >125%. The LCS recovery is acceptable; therefore, no further action was taken.

The WG1450489-7/-8 MS/MSD RPD for arsenic (72%), performed on L2057799-14, is above the acceptance criteria.

In reference to question I:

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

##### Hexavalent Chromium

LCS/LCSD SRM Lot#: ERA D107-921

In reference to question H:

The WG1450432-8 MSD recovery, performed on L2057799-07, is outside the acceptance criteria for chromium, hexavalent (67%); however, the associated LCS recovery and MS recovery are within criteria. Post analytical spike had a recovery of 102%. No further action was taken.



**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

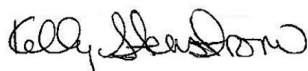
**Lab Number:** L2057799  
**Report Date:** 01/08/21

**Case Narrative (continued)**

The WG1450432-7/-8 MS/MSD RPD (45%), performed on L2057799-07, is above the acceptance criteria.  
WG1450432: A soluble digestion spike was performed with a recovery of 4%.

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: 01/08/21

## QC OUTLIER SUMMARY REPORT

**Project Name:** ENBRIDGE

**Project Number:** 414883 4

**Lab Number:** L2057799

**Report Date:** 01/08/21

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Total Metals - Mansfield Lab								
6010D	Batch QC (L2057799-07)	WG1450489-5	Chromium, Total	MSD	51	75-125	01-02,04,06-08,11,14,16	potential low bias
6010D	Batch QC (L2057799-14)	WG1450489-8	Arsenic, Total	MSD	72	35	01-02,04,06-08,11,14,16	non-directional bias
6010D	Batch QC (L2057799-14)	WG1450489-8	Arsenic, Total	MSD	337	75-125	01-02,04,06-08,11,14,16	potential high bias
MCP General Chemistry - Westborough Lab								
7196A	Batch QC (L2057799-07)	WG1450432-8	Chromium, Hexavalent	MSD	45	35	01,04,06-07	non-directional bias
7196A	Batch QC (L2057799-07)	WG1450432-8	Chromium, Hexavalent	MSD	67	75-125	01,04,06-07	potential low bias

## METALS

**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-01

Date Collected: 12/28/20 12:40

Client ID: DUP1

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Chromium, Total	16.4		mg/kg	0.436	--	1	12/31/20 07:45	01/05/21 11:35	EPA 3050B	97,6010D	GD



**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-02

Date Collected: 12/28/20 13:20

Client ID: DUP2

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 69%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Arsenic, Total	24.4		mg/kg	0.558	--	1	12/31/20 07:45	01/05/21 11:40	EPA 3050B	97,6010D	GD



**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-04

Date Collected: 12/28/20 13:33

Client ID: SL1-8-N2 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Chromium, Total	13.2		mg/kg	0.467	--	1	12/31/20 07:45	01/05/21 11:44	EPA 3050B	97,6010D	GD



**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-06

Date Collected: 12/28/20 13:40

Client ID: SL1-8-E2 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Chromium, Total	28.7		mg/kg	0.451	--	1	12/31/20 07:45	01/05/21 11:49	EPA 3050B	97,6010D	GD



**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-07

Date Collected: 12/28/20 13:45

Client ID: SL1-8-W2 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Chromium, Total	18.4		mg/kg	0.460	--	1	12/31/20 07:45	01/05/21 10:29	EPA 3050B	97,6010D	GD





**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-08

Date Collected: 12/28/20 14:20

Client ID: SL2-10-S5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 65%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Arsenic, Total	16.3		mg/kg	0.602	--	1	12/31/20 07:45	01/05/21 11:54	EPA 3050B	97,6010D	GD



**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-11

Date Collected: 12/28/20 14:30

Client ID: SL2-10-W5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Arsenic, Total	17.8		mg/kg	0.513	--	1	12/31/20 07:45	01/05/21 12:20	EPA 3050B	97,6010D	GD



**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-14

Date Collected: 12/28/20 14:40

Client ID: SL2-10-E5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 71%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Arsenic, Total	14.9		mg/kg	0.549	--	1	12/31/20 07:45	01/05/21 11:11	EPA 3050B	97,6010D	GD



**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-16

Date Collected: 12/28/20 14:50

Client ID: SL2-10-N5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Arsenic, Total	77.6		mg/kg	2.43	--	1	12/31/20 07:45	01/05/21 12:25	EPA 3050B	97,6010D	GD



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## 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): 01-02,04,06-08,11,14,16 Batch: WG1450489-1									
Arsenic, Total	ND	mg/kg	0.400	--	1	12/31/20 07:45	01/05/21 10:15	97,6010D	GD
Chromium, Total	ND	mg/kg	0.400	--	1	12/31/20 07:45	01/05/21 10:15	97,6010D	GD

### Prep Information

Digestion Method: EPA 3050B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-08,11,14,16 Batch: WG1450489-2 WG1450489-3 SRM Lot Number: D109-540								
Arsenic, Total	97		84		70-130	14		30
Chromium, Total	96		90		70-130	6		30

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-08,11,14,16 QC Batch ID: WG1450489-4 WG1450489-5 QC Sample: L2057799-07 Client ID: SL1-8-W2 0-0.5'												
Chromium, Total	18.4	17.9	34.4	89		27.6	51	Q	75-125	22		35
MCP Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-08,11,14,16 QC Batch ID: WG1450489-7 WG1450489-8 QC Sample: L2057799-14 Client ID: SL2-10-E5 0-0.5'												
Arsenic, Total	14.9	13.2	28.1	100		59.9	337	Q	75-125	72	Q	35

**Project Name:** ENBRIDGE

**Project Number:** 414883 4

### Lab Serial Dilution

### Analysis

**Batch Quality Control**

**Lab Number:** L2057799

**Report Date:** 01/08/21

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-08,11,14,16 QC Batch ID: WG1450489-6 QC Sample: L2057799-07 Client ID: SL1-8-W2 0-0.5'						
Chromium, Total	18.4	21.0	mg/kg	14		20
MCP Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-08,11,14,16 QC Batch ID: WG1450489-9 QC Sample: L2057799-14 Client ID: SL2-10-E5 0-0.5'						
Arsenic, Total	14.9	17.3	mg/kg	16		20



# **INORGANICS & MISCELLANEOUS**

Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-01

Date Collected: 12/28/20 12:40

Client ID: DUP1

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>MCP General Chemistry - Westborough Lab</b>										
Chromium, Hexavalent	1.54		mg/kg	0.927	--	1	12/30/20 15:58	01/04/21 19:15	97,7196A	NA
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	86.3		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR
pH (H)	8.0		SU	-	NA	1	-	12/29/20 12:06	1,9045D	JA
Oxidation/Reduction Potential	190		mv	-	NA	1	-	12/29/20 11:56	68,1498	JA



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-02

Date Collected: 12/28/20 13:20

Client ID: DUP2

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

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	69.4		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-04

Date Collected: 12/28/20 13:33

Client ID: SL1-8-N2 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>MCP General Chemistry - Westborough Lab</b>										
Chromium, Hexavalent	ND		mg/kg	0.957	--	1	12/30/20 15:58	01/04/21 19:15	97,7196A	NA
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	83.6		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR
pH (H)	8.1		SU	-	NA	1	-	12/29/20 12:06	1,9045D	JA
Oxidation/Reduction Potential	190		mv	-	NA	1	-	12/29/20 11:56	68,1498	JA



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-06

Date Collected: 12/28/20 13:40

Client ID: SL1-8-E2 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>MCP General Chemistry - Westborough Lab</b>										
Chromium, Hexavalent	ND		mg/kg	0.932	--	1	12/30/20 15:58	01/04/21 19:15	97,7196A	NA
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	85.8		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR
pH (H)	8.1		SU	-	NA	1	-	12/29/20 12:06	1,9045D	JA
Oxidation/Reduction Potential	190		mv	-	NA	1	-	12/29/20 11:56	68,1498	JA



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-07

Date Collected: 12/28/20 13:45

Client ID: SL1-8-W2 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>MCP General Chemistry - Westborough Lab</b>										
Chromium, Hexavalent	ND		mg/kg	0.951	--	1	12/30/20 15:58	01/04/21 19:15	97,7196A	NA
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	84.1		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR
pH (H)	8.0		SU	-	NA	1	-	12/29/20 12:06	1,9045D	JA
Oxidation/Reduction Potential	190		mv	-	NA	1	-	12/29/20 11:56	68,1498	JA



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-08

Date Collected: 12/28/20 14:20

Client ID: SL2-10-S5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

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	64.9		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

**SAMPLE RESULTS**

Lab ID: L2057799-11

Date Collected: 12/28/20 14:30

Client ID: SL2-10-W5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

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	73.8		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR





Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-14

Date Collected: 12/28/20 14:40

Client ID: SL2-10-E5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

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	70.5		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR



Project Name: ENBRIDGE

Lab Number: L2057799

Project Number: 414883 4

Report Date: 01/08/21

## SAMPLE RESULTS

Lab ID: L2057799-16

Date Collected: 12/28/20 14:50

Client ID: SL2-10-N5 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

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	70.2		%	0.100	NA	1	-	12/29/20 09:46	121,2540G	PR



**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

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

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab for sample(s): 01,04,06-07 Batch: WG1450432-1									
Chromium, Hexavalent	ND	mg/kg	0.800	--	1	12/30/20 15:58	01/04/21 19:15	97,7196A	NA

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07 Batch: WG1449871-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07 Batch: WG1449872-1								
Oxidation/Reduction Potential	102		-		90-110	-		20
MCP General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07 Batch: WG1450432-2 WG1450432-3								
Chromium, Hexavalent	91		98		70-129	7		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07 QC Batch ID: WG1450432-7 WG1450432-8 QC Sample: L2057799-07 Client ID: SL1-8-W2 0-0.5'												
Chromium, Hexavalent	ND	927	981	106		947	67	Q	75-125	45	Q	35

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ENBRIDGE

Project Number: 414883 4

Lab Number: L2057799

Report Date: 01/08/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04,06-08,11,14,16 QC Batch ID: WG1449809-1 QC Sample: L2057799-14 Client ID: SL2-10-E5 0-0.5'						
Solids, Total	70.5	72.3	%	3		20
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07 QC Batch ID: WG1449871-2 QC Sample: L2057799-07 Client ID: SL1-8-W2 0-0.5'						
pH (H)	8.0	7.8	SU	3		5
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07 QC Batch ID: WG1449872-2 QC Sample: L2057799-07 Client ID: SL1-8-W2 0-0.5'						
Oxidation/Reduction Potential	190	190	mv	0		20

**Project Name:** ENBRIDGE**Lab Number:** L2057799**Project Number:** 414883 4**Report Date:** 01/08/21**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>
L2057799-01A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		MCP-CR-6010T-10(180)
L2057799-01B	Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),TS(7),PH-9045(1)
L2057799-01C	Glass 120ml/4oz unpreserved/No Headspace	A	NA		3.2	Y	Absent		MCP-HEXCR7196-10(30)
L2057799-02A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-02B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)
L2057799-03A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-03B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-03C	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-03D	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-03E	Glass 120ml/4oz unpreserved/No Headspace	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-04A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-04B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-CR-6010T-10(180)
L2057799-04C	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),PH-9045(1)
L2057799-04D	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),PH-9045(1)
L2057799-04E	Glass 120ml/4oz unpreserved/No Headspace	A	NA		3.2	Y	Absent		MCP-HEXCR7196-10(30)
L2057799-05A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-05B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-05C	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-05D	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-05E	Glass 120ml/4oz unpreserved/No Headspace	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-06A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-06B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-CR-6010T-10(180)
L2057799-06C	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),PH-9045(1)

**Project Name:** ENBRIDGE**Lab Number:** L2057799**Project Number:** 414883 4**Report Date:** 01/08/21**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>
L2057799-06D	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),PH-9045(1)
L2057799-06E	Glass 120ml/4oz unpreserved/No Headspace	A	NA		3.2	Y	Absent		MCP-HEXCR7196-10(30)
L2057799-07A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-07A1	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-07B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-CR-6010T-10(180)
L2057799-07B1	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-CR-6010T-10(180)
L2057799-07C	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),PH-9045(1)
L2057799-07C1	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),PH-9045(1)
L2057799-07D	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		ORP-9045(1),PH-9045(1)
L2057799-07E	Glass 120ml/4oz unpreserved/No Headspace	A	NA		3.2	Y	Absent		MCP-HEXCR7196-10(30)
L2057799-08A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-08B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)
L2057799-09A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-09B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-10A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-10B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-11A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-11B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)
L2057799-12A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-12B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-13A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-13B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-13B1	Glass 60ml unpreserved split	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-14A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-14A1	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-14B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)
L2057799-14B1	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)
L2057799-14B2	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)



**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

Serial\_No:01082111:30  
**Lab Number:** L2057799  
**Report Date:** 01/08/21

**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>
L2057799-15A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-15B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-16A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2057799-16B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)
L2057799-17A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-17B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)
L2057799-18A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		HOLD-WETCHEM()
L2057799-18B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		HOLD-METAL(180)

\*Values in parentheses indicate holding time in days



**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

## GLOSSARY

### Acronyms

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

Report Format: Data Usability Report



**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2057799  
**Report Date:** 01/08/21

#### Footnotes

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

#### Terms

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

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

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

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

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

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

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

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

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



**Project Name:** ENBRIDGE**Lab Number:** L2057799**Project Number:** 414883 4**Report Date:** 01/08/21**Data Qualifiers**

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

**Project Name:** ENBRIDGE

**Lab Number:** L2057799

**Project Number:** 414883 4

**Report Date:** 01/08/21

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 68 Annual Book of ASTM (American Society for Testing and Materials) Standards following extraction by SW-846 EPA Method 9045C under the requirements of MADEP BWSC, WSC-CAM-VIB. August 2004.
- 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.

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

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; 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.

**EPA TO-12** Non-methane organics

**EPA 3C** Fixed gases

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

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

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

### 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.**

#### 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 2 OF 2

8 Walkup Drive  
Westboro, MA 01581  
Tel: 508-698-9220

320 Forbes Blvd  
Mansfield, MA 02048  
Tel: 508-622-9300

## Project Information

Project Name: ENBRIDGE OS  
Project Location: KCP WEYMOUTH MA  
Project #: 414883 4  
Project Manager: DAVID SULLIVAN  
ALPHA Quote #:

Date Rec'd in Lab: 12/29/20

ALPHA Job #: 2067799

## Report Information - Data Deliverables

ADEX  EMAIL

## Billing Information

Same as Client info PO #: 161375

## Client Information

Client: TRC  
Address: 650 SUFFOLK ST  
LOWELL MA  
Phone: 9789705600 / 6174628090  
Email: DSULLIVAN@TRCOMPANIES.COM

## Additional Project Information:

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
Date Due: 48 HR

## 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 type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	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		SAMPLE INFO Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do
METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPT3		
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		Sample Comments
VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
PCB <input type="checkbox"/> PEST		
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
TOTAL AS % SOLIDS		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS		TOTAL AS		TOTAL # BOTTLES	
		Date	Time			VOC	SVOC	METALS	EPH		VPH
57799-11	SL2-10-W5 0-0.5'	12/20/20	14:30	SE	JF						2
-12	SL2-10-W10 0-0.5'	"	14:33	"	"						2
-13	SL2-10-W15 0-0.5'	"	14:35	"	"						2
-14	SL2-10-E5 0-0.5'	"	14:40	"	"						5
-15	SL2-10-E10 0-0.5'	"	14:45	"	"						2
-16	SL2-10-N5 0-0.5'	"	14:50	"	"						2
-17	SL2-10-N10 0-0.5'	"	14:55	"	"						2
-18	SL2-10-N15 0-0.5'	"	15:00	"	"						2

<b>Container Type</b> P= Plastic A= Amber glass V= Vial G= Glass B= Bacteria cup C= Cube O= Other E= Encore D= BOD Bottle	<b>Preservative</b> A= None B= HCl C= HNO3 D= H2SO4 E= NaOH F= MeOH G= NaHSO4 H= Na2S2O3 I= Ascorbic Acid J= NH4Cl K= Zn Acetate O= Other	<b>Container Type</b> A P <b>Preservative</b> A A	<b>Relinquished By:</b> J. FIERO JCF	<b>Date/Time</b> 12/29/20 7:45	<b>Received By:</b> [Signature]	<b>Date/Time</b> 12/29/20 7:45	All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. FORM NO: 01-01 (rev. 12-Mar-2012)
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## ANALYTICAL REPORT

Lab Number:	L2100350
Client:	TRC Environmental Consultants Wannalancit Mills 650 Suffolk Street Lowell, MA 01854
ATTN:	David Sullivan
Phone:	(978) 656-3565
Project Name:	ENBRIDGE
Project Number:	414883 4
Report Date:	01/06/21

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:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2100350  
**Report Date:** 01/06/21

<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>
L2100350-01	SL2-10-N10 0-0.5'	SOIL	KINGS COVE, WEYMOUTH, MA	12/28/20 14:55	12/29/20

Project Name: ENBRIDGE

Lab Number: L2100350

Project Number: 414883 4

Report Date: 01/06/21

**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)?	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:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2100350  
**Report Date:** 01/06/21

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2100350  
**Report Date:** 01/06/21

### 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.

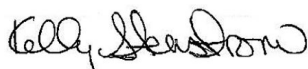
##### Total Metals

In reference to question I:

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

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 01/06/21

**QC OUTLIER SUMMARY REPORT****Project Name:** ENBRIDGE**Lab Number:** L2100350**Project Number:** 414883 4**Report Date:** 01/06/21

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:** ENBRIDGE

**Lab Number:** L2100350

**Project Number:** 414883 4

**Report Date:** 01/06/21

**SAMPLE RESULTS**

Lab ID: L2100350-01

Date Collected: 12/28/20 14:55

Client ID: SL2-10-N10 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Mansfield Lab</b>											
Arsenic, Total	8.79		mg/kg	0.464	--	1	01/06/21 08:20	01/06/21 13:18	EPA 3050B	97,6010D	GD





Project Name: ENBRIDGE

Lab Number: L2100350

Project Number: 414883 4

Report Date: 01/06/21

## 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 Batch: WG1451816-1									
Arsenic, Total	ND	mg/kg	0.400	--	1	01/06/21 08:20	01/06/21 13:05	97,6010D	GD

### Prep Information

Digestion Method: EPA 3050B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2100350  
**Report Date:** 01/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1451816-2 WG1451816-3 SRM Lot Number: D109-540								
Arsenic, Total	105		99		70-130	6		30

# **INORGANICS & MISCELLANEOUS**

Project Name: ENBRIDGE

Lab Number: L2100350

Project Number: 414883 4

Report Date: 01/06/21

**SAMPLE RESULTS**

Lab ID: L2100350-01

Date Collected: 12/28/20 14:55

Client ID: SL2-10-N10 0-0.5'

Date Received: 12/29/20

Sample Location: KINGS COVE, WEYMOUTH, MA

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	81.9		%	0.100	NA	1	-	01/05/21 23:02	121,2540G	TR



**Project Name:** ENBRIDGE

**Project Number:** 414883 4

Serial\_No:01062115:00

**Lab Number:** L2100350

**Report Date:** 01/06/21

**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>
L2100350-01A	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L2100350-01B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		MCP-AS-6010T-10(180)

**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2100350  
**Report Date:** 01/06/21

## GLOSSARY

### Acronyms

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

Report Format: Data Usability Report



**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2100350  
**Report Date:** 01/06/21

#### Footnotes

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

#### Terms

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

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

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

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

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

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

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

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

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



**Project Name:** ENBRIDGE  
**Project Number:** 414883 4

**Lab Number:** L2100350  
**Report Date:** 01/06/21

**Data Qualifiers**

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.



**Project Name:** ENBRIDGE

**Lab Number:** L2100350

**Project Number:** 414883 4

**Report Date:** 01/06/21

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

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

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

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; 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.

**EPA TO-12** Non-methane organics

**EPA 3C** Fixed gases

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

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

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

### 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.**

#### 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 2 OF 2

8 Walkup Drive  
Westboro, MA 01581  
Tel: 508-896-9220

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

### Client Information

Client: TRC

Address: 650 SUFFOLK ST  
LOWELL MA

Phone: 9789705600/6174628490

Email: DSULLIVAN@TRCOMPANIES.COM

### Additional Project Information:

### Project Information

Project Name: ENBRIDGE OS

Project Location: KCP WEYMOUTH MA

Project #: 414883 4

Project Manager: DAVID SULLIVAN

ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due: 48 HR

Date Rec'd In Lab: 12/29/20

ALPHA Job #: ~~62067799~~

### Report Information - Data Deliverables

ADEX  EMAIL

### Billing Information

Same as Client info PO #: 161375

### 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		TOTAL BOTTLES
VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	Filtration		
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13	<input type="checkbox"/> Field		
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	Preservation		
PCB: <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	<input type="checkbox"/> Lab to do		
TOTAL AS 4% SOLIDS				
Sample Comments				

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS		SAMPLE INFO		TOTAL BOTTLES
		Date	Time			Filtration	Preservation			
<del>57799-11</del>	SL2-10-W5 0-0.5'	12/29/20	14:30	SE	JF			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2
<del>-12</del>	SL2-10-W10 0-0.5'	"	14:35	"	"			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2
<del>-13</del>	SL2-10-W15 0-0.5'	"	14:35	"	"			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2
<del>-14</del>	SL2-10-E5 0-0.5'	"	14:40	"	"			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5
<del>-15</del>	SL2-10-E10 0-0.5'	"	14:45	"	"			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2
<del>-16</del>	SL2-10-N5 0-0.5'	"	14:50	"	"			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2
00350-01 <del>-17</del>	SL2-10-N10 0-0.5'	"	14:55	"	"			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2
<del>-18</del>	SL2-10-N15 0-0.5'	"	15:00	"	"			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	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= HNO3  
D= H2SO4  
E= NaOH  
F= MeOH  
G= NaHSO4  
H= Na2S2O8  
I= Ascorbic Acid  
J= NH4Cl  
K= Zn Acetate  
O= Other

Container Type	A	P
Preservative	A	A

Relinquished By: <u>J. Fisco JC:F</u>	Date/Time <u>12/29/20 7:45</u>	Received By: <u>[Signature]</u>	Date/Time <u>12/29/20 7:45</u>
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All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.  
FORM NO: 01-01 (rev. 12-Mar-2012)

**APPENDIX C**

**DATA USABILITY ASSESSMENT**



**Sediment Sampling  
90 Bridge Street  
Weymouth, MA**

**Data Usability Assessment  
Prepared: January 11, 2021**

**A. Overall Summary**

The data associated with sediment samples collected on November 13, 2020 and December 28, 2020 were reviewed. In general, data are usable for project decisions based on a review of accuracy, precision, and sensitivity of the data. The data are valid as reported and may be used for decision-making purposes without any cautions or limitations.

**Samples Included in the Data Usability Assessment:**

SL1-01 (0-0.5)	SL1-02 (0-0.5)	SL1-03 (0-0.5)	SL1-04 (0-0.5)
SL1-05 (0-0.5)	SL1-06 (0-0.5)	SL1-07 (0-0.5)	DUP-1 (11-13-20)
SL1-08 (0-0.5)	SL1-08-E2 (0-0.5)	SL1-08-N2 (0-0.5)	DUP-1 (12-28-20)
SL1-08-W (0-0.5)	SL1-09 (0-0.5)	SL1-10 (0-0.5)	SL2-01 (0-0.5)
SL2-02 (0-0.5)	SL2-03 (0-0.5)	SL2-04 (0-0.5)	DUP-2 (11-13-20)
SL2-05 (0-0.5)	SL2-06 (0-0.5)	SL2-07 (0-0.5)	SL2-08 (0-0.5)
SL2-09 (0-0.5)	SL2-10 (0-0.5)	SL2-10-E5 (0-0.5)	SL2-10-N5 (0-0.5)
SL2-10-N10 (0-0.5)	SL2-10-S5 (0-0.5)	DUP-2 (12-28-20)	SL2-10-W5 (0-0.5)
SL3-04 (0-0.5)	SL3-05 (0-0.5)	SL3-06 (0-0.5)	SL3-07 (0-0.5)
SL3-08 (0-0.5)	SL3-09 (0-0.5)	SL3-10 (0-0.5)	

**Field Duplicates:**

SL1-07 (0-0.5)/DUP-1 (11-13-20) (EPH, PAHs by SIM, metals)  
SL1-08-N2 (0-0.5)/DUP-1 (12-28-20) (Chromium)  
SL2-04 (0-0.5)/DUP-2 (11-13-20) (EPH, PAHs by SIM, metals)  
SL2-10-S5 (0-0.5)/DUP-2 (12-28-20) (Arsenic)

**MS/MSDs:**

SL1-05 (0-0.5) EPH, PAHs by SIM, metals  
SL2-05 (0-0.5) EPH, PAHs by SIM, metals  
SL1-08-W2 (0-0.5) Total chromium, hexavalent chromium  
SL-2-10-E5 (0-0.5) Arsenic

**Soil Analyses Performed:** (EPH, PAHs/SIM, metals)

**Laboratory Data Packages:**

L2050541, L2057799, L2100350 (Alpha Analytical, Westborough and Mansfield, MA)

**Criteria Reviewed:**

Holding times/sample preparation, blanks, surrogates, laboratory control sample (LCS), LCS duplicates (LCSDs), matrix spike (MS), MS duplicates (MSDs), serial dilution results, field duplicate results, reporting limits (RLs)

## B. Sensitivity Evaluation

Sensitivity was acceptable for the all analyses of soil samples (i.e., the RLs for nondetect results were below the Massachusetts Contingency Plan [MCP] Method 1 S-1/GW-3 standards).

## C. Evaluation of Accuracy and Precision

No biases were associated with the EPH analyses of the samples. Biases and uncertainty associated with the PAH SIM and metals analyses of the samples are discussed below.

### C-1. Low-Biased Results

Potential low bias exists for select results due to various QC nonconformances. In general, the overall data usability and decision-making process were not affected by these QC nonconformances, as shown in the table below.

Samples Affected	Analytes Affected	Reason for Low Bias	Reason Data Usability or Decision-making Process Not Affected
SL2-05 (0-0.5), SL3-04 (0-0.5), SL3-05 (0-0.5), SL3-06 (0-0.5), SL3-07 (0-0.5), SL3-08 (0-0.5), SL3-09 (0-0.5), SL3-10 (0-0.5), DUP-1 (11-13-20), DUP-2 (11-13-20)	Naphthalene	Low recoveries in LCS and LCSD	Results for naphthalene significantly below project action levels in affected samples.
SL1-05 (0-0.5)	Naphthalene, Phenanthrene	Low recovery in MSD	Results for the affected analytes significantly below project action levels in affected sample.
SL1-01 (0-0.5), SL1-02 (0-0.5), SL1-03 (0-0.5), SL1-04 (0-0.5), SL1-05 (0-0.5), SL1-06 (0-0.5), SL1-07 (0-0.5), DUP-1 (11-13-20), SL1-08 (0-0.5), SL1-09 (0-0.5), SL1-10 (0-0.5), SL2-01 (0-0.5), SL2-02 (0-0.5), SL2-03 (0-0.5), SL2-04 (0-0.5), DUP-2 (11-13-20), SL2-06 (0-0.5), SL2-07 (0-0.5), SL2-08 (0-0.5), SL2-09 (0-0.5), SL2-10 (0-0.5), SL3-04 (0-0.5), SL3-05 (0-0.5), SL3-06 (0-0.5), SL3-07 (0-0.5),	Chromium	Low recoveries in MS/MSD	Results for chromium significantly below project action levels in affected samples.

Samples Affected	Analytes Affected	Reason for Low Bias	Reason Data Usability or Decision-making Process Not Affected
SL3-08 (0-0.5), SL3-09 (0-0.5), SL3-10 (0-0.5)			
SL1-01 (0-0.5), SL1-02 (0-0.5), SL1-03 (0-0.5), SL1-04 (0-0.5), SL1-06 (0-0.5), SL1-07 (0-0.5), DUP-1 (11-13-20), SL1-08 (0-0.5), SL1-09 (0-0.5), SL1-10 (0-0.5), SL2-01 (0-0.5), SL2-02 (0-0.5), SL2-03 (0-0.5), SL2-04 (0-0.5), DUP-2 (11-13-20), SL2-05 (0-0.5), SL2-06 (0-0.5), SL2-07 (0-0.5), SL2-08 (0-0.5), SL2-09 (0-0.5), SL2-10 (0-0.5), SL3-04 (0-0.5), SL3-05 (0-0.5), SL3-06 (0-0.5), SL3-07 (0-0.5), SL3-08 (0-0.5), SL3-09 (0-0.5), SL3-10 (0-0.5)	Zinc	Low recoveries in MS/MSD	Results for zinc significantly below project action levels in affected samples.
SL1-08-E2 (0-0.5), SL1-08-N2 (0-0.5), DUP-1 (12-28-20), SL1-08-W (0-0.5)	Chromium	Low recovery in MSD	Results for chromium significantly below project action levels in affected samples.

## C-2. High-Biased Results

Potential high bias exists for select results due to various QC nonconformances. In general, the overall data usability and decision-making process were not affected by these QC nonconformances, as shown in the table below.

Samples Affected	Analytes Affected	Reason for High Bias	Reason Data Usability or Decision-making Process Not Affected
SL1-01 (0-0.5), SL1-02 (0-0.5), SL1-03 (0-0.5), SL1-04 (0-0.5), SL1-05 (0-0.5), SL1-06 (0-0.5), SL1-07 (0-0.5), DUP-1 (11-13-20), SL1-08 (0-0.5), SL1-09 (0-0.5), SL1-10 (0-0.5), SL2-01 (0-0.5), SL2-02 (0-0.5), SL2-03 (0-0.5), SL2-04 (0-	Mercury	High recoveries in MS/MSD	Results for mercury significantly below project action levels in affected samples.

Samples Affected	Analytes Affected	Reason for High Bias	Reason Data Usability or Decision-making Process Not Affected
0.5), DUP-2 (11-13-20), SL2-05 (0-0.5), SL2-06 (0-0.5), SL2-07 (0-0.5), SL2-08 (0-0.5), SL2-09 (0-0.5), SL2-10 (0-0.5), SL3-04 (0-0.5), SL3-05 (0-0.5), SL3-06 (0-0.5), SL3-07 (0-0.5), SL3-08 (0-0.5), SL3-09 (0-0.5), SL3-10 (0-0.5)			
SL2-10 (0-0.5), SL2-10-E5 (0-0.5), SL2-10-N5 (0-0.5), SL2-10-N10 (0-0.5), SL2-10-S5 (0-0.5), DUP-2 (12-28-20), SL2-10-W5 (0-0.5)	Arsenic	High recovery in MSD	Results for arsenic significantly above or below project action levels in affected samples.

### C-3. Potential Uncertainty

Potential uncertainty exists for select results due to various QC nonconformances. In general, the overall data usability and decision-making process were not affected by these QC nonconformances, as shown in the table below.

Samples Affected	Analytes Affected	Reason for Uncertainty	Reason Data Usability or Decision-making Process Not Affected
SL1-01 (0-0.5), SL1-02 (0-0.5), SL1-03 (0-0.5), SL1-04 (0-0.5), SL1-05 (0-0.5), SL1-06 (0-0.5), SL1-07 (0-0.5), DUP-1 (11-13-20), SL1-08 (0-0.5), SL1-09 (0-0.5), SL1-10 (0-0.5), SL2-01 (0-0.5), SL2-02 (0-0.5), SL2-03 (0-0.5), SL2-04 (0-0.5), DUP-2 (11-13-20), SL2-05 (0-0.5), SL2-06 (0-0.5), SL2-07 (0-0.5), SL2-08 (0-0.5), SL2-09 (0-0.5), SL2-10 (0-0.5), SL3-04 (0-0.5), SL3-05 (0-0.5), SL3-06 (0-0.5), SL3-07 (0-0.5), SL3-08 (0-0.5), SL3-09 (0-0.5), SL3-10 (0-0.5)	Vanadium	MS/MSD variability	Results for vanadium significantly above or below project action levels in affected samples.



Samples Affected	Analytes Affected	Reason for Uncertainty	Reason Data Usability or Decision-making Process Not Affected
SL1-01 (0-0.5), SL1-02 (0-0.5), SL1-03 (0-0.5), SL1-04 (0-0.5), SL1-06 (0-0.5), SL1-07 (0-0.5), DUP-1 (11-13-20), SL1-08 (0-0.5), SL1-09 (0-0.5), SL1-10 (0-0.5), SL2-01 (0-0.5), SL2-02 (0-0.5), SL2-03 (0-0.5), SL2-04 (0-0.5), DUP-2 (11-13-20), SL2-05 (0-0.5), SL2-06 (0-0.5), SL2-07 (0-0.5), SL2-08 (0-0.5), SL2-09 (0-0.5), SL2-10 (0-0.5), SL3-04 (0-0.5), SL3-05 (0-0.5), SL3-06 (0-0.5), SL3-07 (0-0.5), SL3-08 (0-0.5), SL3-09 (0-0.5), SL3-10 (0-0.5)	Lead	Serial dilution variability	Results for lead significantly above or below project action levels in affected samples.
SL1-07 (0-0.5)	Naphthalene, 2-methylnaphthalene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene	Field duplicate variability	Results for the affected analytes significantly below project action levels in affected sample.
SL1-01 (0-0.5), SL1-02 (0-0.5), SL1-03 (0-0.5), SL1-04 (0-0.5), SL1-05 (0-0.5), SL1-06 (0-0.5), SL1-07 (0-0.5), DUP-1 (11-13-20), SL1-08 (0-0.5), SL1-09 (0-0.5), SL1-10 (0-0.5), SL2-01 (0-0.5), SL2-02 (0-0.5), SL2-03 (0-0.5), DUP-2 (11-13-20), SL2-05 (0-0.5), SL2-06 (0-0.5), SL2-07 (0-0.5), SL2-08 (0-0.5), SL2-09 (0-0.5), SL2-10 (0-0.5), SL3-04 (0-0.5), SL3-05 (0-0.5),	Arsenic, chromium, nickel, vanadium	Field duplicate variability	Results for the affected analytes significantly above or below project action levels in affected samples.

Samples Affected	Analytes Affected	Reason for Uncertainty	Reason Data Usability or Decision-making Process Not Affected
SL3-06 (0-0.5), SL3-07 (0-0.5), SL3-08 (0-0.5), SL3-09 (0-0.5), SL3-10 (0-0.5)			
SL2-04 (0-0.5)	Pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(ghi)perylene	Field duplicate variability	Results for the affected analytes significantly below project action levels in affected sample.

**APPENDIX D**

**IMMINENT HAZARD EVALUATION FOR ARSENIC AND  
CHROMIUM IN SEDIMENT**



**DRAFT  
IMMINENT HAZARD EVALUATION  
FOR ARSENIC AND CHROMIUM IN SEDIMENT**

**Kings Cove Conservation Area  
90 Bridge Street  
Weymouth, Massachusetts**

**Release Tracking Number (RTN) 4-28615**

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*Prepared for:*



**Algonquin Gas Transmission, LLC**  
890 Winter Street, Suite 300  
Waltham, Massachusetts 02451

*Prepared by:*

TRC Environmental Corporation  
Wannalancit Mills  
650 Suffolk Street  
Lowell, Massachusetts 01854  
(987) 970-5600

**February 2021**

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### ATTACHMENTS

Attachment 1	Sediment Data
Attachment 2	ProUCL Output
Attachment 3	Risk Calculation Shortform

**IMMINENT HAZARD EVALUATION FOR ARSENIC AND CHROMIUM IN SEDIMENT  
90 BRIDGE STREET  
WEYMOUTH, MASSACHUSETTS**

TRC Environmental Corporation (TRC) has prepared this Imminent Hazard (IH) Evaluation report for Algonquin Gas Transmission, LLC (Algonquin) regarding arsenic and total chromium detected in surficial sediment on the shoreline of the Kings Cove Conservation Area at 90 Bridge Street in Weymouth, Massachusetts (Kings Cove). This IH Evaluation is one of the Immediate Response Action (IRA) activities initiated in response to the detection of arsenic and total chromium in sediment on December 8, 2020.

In accordance with the Massachusetts Contingency Plan (MCP), specifically 310 CMR 40.0953, the IH Evaluation evaluates actual or likely exposures under current site conditions, and considers an appropriately short period of time (five years or less). The levels of oil and/or hazardous material in the top twelve inches of sediment are considered in the IH Evaluation.

MCP Method 3 has been used for this IH Evaluation. This IH Evaluation has been conducted consistent with the MCP and the requirements of 310 CMR 40.0426, 310 CMR 40.0951 through 40.0955, and MassDEP's Guidance for Disposal Site Risk Characterization (MassDEP, 1995 and updates).

An MCP Method 3 IH Evaluation includes four steps as described in Section 10.0 of MassDEP's Guidance for Disposal Site Risk Characterization (MassDEP, 1995): (1) Identification of Contaminants of Potential Concern (COPCs); (2) Exposure Assessment; (3) Dose-Response Assessment; and (4) Risk Characterization. The following sections describe how those steps were performed and the conclusions of the IH Evaluation.

Supplemental information for this IH Evaluation is included in Attachment 1 (Sediment Data), Attachment 2 (ProUCL Output), and Attachment 3 (Risk Calculation Shortform).

A Data Usability Assessment (DUA) for the sediment data that is the subject of this IH Evaluation is included in Appendix C of the IRA Completion Report.

## **1.0 IDENTIFICATION OF CONTAMINANTS OF POTENTIAL CONCERN AND HOT SPOT EVALUATION**

### **1.1 DATA REVIEW**

Twenty-nine 0 to 0.5-foot sediment samples (SL1-01 through SL1-10, SL2-01 through SL2-10, and SL3-04 through SL3-10, plus field duplicates at SL1-07 and SL2-04) were collected from Kings Cove on November 13, 2020 (see Figure 1). Total chromium was detected in one sediment sample and arsenic was detected in another at concentrations exceeding the notification thresholds specified at 310 CMR 40.0321(2)(b).

Additional sediment samples were collected on December 28, 2020 (see Figure 1) to determine the vertical extent of arsenic-impacted sediment at location SL2-10 and to determine the distribution of total chromium and hexavalent chromium in the vicinity of location SL1-08. The sediment sampling data are presented in Attachment 1, Table 1.

The hexavalent chromium data collected from the vicinity of sampling location SL1-08 were used to develop a site-specific, percentage of hexavalent chromium. Based on the detected hexavalent chromium concentration (1.54 mg/kg) and the total chromium concentration (16.4 mg/kg) at sampling location SL1-8-N2 DUP-1, TRC has estimated that 9.4 percent of the total chromium at sampling location SL1-08 (i.e., 23.5 mg/kg of the 250 mg/kg detected) is in the hexavalent form. The 23.5 mg/kg concentration was used in the risk characterization to evaluate the contribution to risk of hexavalent chromium. In the risk characterization, the total chromium concentration of 250 mg/kg was assumed to be trivalent chromium without subtracting the 23.5 mg/kg estimated to be hexavalent chromium. Accordingly, the risk calculations relating to hexavalent chromium and total chromium are quite conservative.

Data from sediment sampling locations SL1-01, SL1-02, SL1-05, SL2-01, SL2-04, SL2-08, SL2-09, SL3-04 through SL3-06, SL3-08 through SL3-10, SL2-10-E5, SL2-10-W5, and SL2-10-N10 were excluded from the quantitative evaluation because these data indicate substantially lower contaminant concentrations than the data from the other sampling locations (i.e., consistent with MassDEP natural soil background concentrations for metals and polycyclic aromatic hydrocarbons [PAHs]). Therefore, TRC has concluded that the excluded locations are outside the area of impacts evaluated in the IH Evaluation. The excluded samples are highlighted in green in Attachment 1, Table 1. Excluding samples with lower contaminant concentrations from the risk characterization data set results in a conservative data set. The locations of samples utilized or excluded are illustrated in the Extent of Site Addressed By IRA (outlined in orange on Figure 1).

### **1.2 IDENTIFICATION OF COPCs**

All contaminants detected at concentrations higher than the laboratory reporting limits were retained as Contaminants of Potential Concern (COPCs) for the IH Evaluation unless the maximum detected concentration of a contaminant was less than the MCP

Method 1 S-1/GW-3 soil standards. The sediment data are presented in Appendix 1, Table 1. Based on the above criteria, arsenic, chromium, lead, nickel, and vanadium were identified as COPCs for the 0 to 0.5-foot sediment interval. The risk characterization sediment data set is presented in Appendix 1, Table 2.

### 1.3 Hot Spot Evaluation

The data for sediment samples obtained from the 0 to 0.5-foot depth interval (see Appendix 1, Table 2) were evaluated to rule out the possibility of a hot spot. No hot spots were identified.

A hot spot is defined in 310 CMR 40.0006 of the MCP as a discrete area where the chemical concentrations are substantially higher than those present in the surrounding area. A discrete area in which an average contaminant concentration within the area is greater than ten times but less than one hundred times the average concentration in the immediate surrounding area is a hot spot unless there is no evidence of a greater exposure potential associated with the discrete area. A discrete area in which the average contaminant concentration is greater than one hundred times the average concentration in the immediate surrounding area is considered a hot spot. Hot spot identification is performed to address the possibility that the risk associated with significantly elevated contaminant concentrations will be diluted by averaging those elevated concentrations with lower contaminant concentrations in the area.

The MCP specifies, at 310 CMR 40.0006, that contaminant concentrations equal to or less than an applicable MCP Method 1 standard are never indicative of a hot spot. Though not applicable to sediment, MCP Method 1 S-1/GW-3 soil standards were conservatively applied to determine the contaminants to be considered in the hot spot evaluation. As a result, the metals arsenic, chromium, lead, nickel, and vanadium (Table 1) were included in the hot spot evaluation. Any other contaminants detected in the sediment samples were present at concentrations less than MCP Method 1 S-1/GW-3 soil standards. Hexavalent chromium was not included in the hot spot analysis because the maximum concentration of chromium, based on both total chromium and chromium speciation data, was less than the MCP Method 1 S-1/GW-3 soil standard.

The following tables show the maximum detected concentration, average concentration, and variance between the maximum concentration and the average concentration for each metal evaluated in the hot spot evaluation.

Chemical	Maximum Concentration (mg/kg)	Average Concentration Excluding Maximum (mg/kg)	Variance (Maximum versus Average Excluding Maximum)
<b>0 to 0.5-Foot Sediment Data Set</b>			
Arsenic	77.6	21.8	3.6-fold
Chromium	250	22.4	11.2-fold



Chemical	Maximum Concentration (mg/kg)	Average Concentration Excluding Maximum (mg/kg)	Variance (Maximum versus Average Excluding Maximum)
Lead	580	57.8	10.0-fold
Nickel	6,100	67.3	90.6-fold
Vanadium	13,000	453	28.7-fold

None of these metals were detected in a discrete area at an average concentration greater than 100 times the average concentration in the immediate surrounding area and there is no evidence of a greater exposure potential associated with the contaminant concentrations in any discrete area. Accordingly, no hot spots were identified.

## 2.0 EXPOSURE ASSESSMENT

The Exposure Assessment identifies the individuals who might be exposed to the COPCs in the area that is the subject of the IH Evaluation, otherwise known as receptors. This section discusses the potential pathways of exposure for the identified receptors, exposure assumptions used for each receptor, estimates of the frequency and intensity of the potential exposure, the medium-specific exposure point concentrations, and the resulting concentrations of a COPC to which specific receptors may be exposed.

### 2.1 Current Activities and Uses

This IH Evaluation is applicable to the Kings Cove shore (see Figure 1). The Kings Cove shore has the potential to be used recreationally, primarily for wading and walking (during low tide).

### 2.2 Receptors and Exposure Pathways

This IH Evaluation characterizes cumulative risks to recreational visitors who may be exposed to surficial sediments where elevated concentrations of COPCs in the 0 to 0.5-foot interval have been detected.

These recreational visitors could potentially be exposed to surficial sediment primarily through incidental ingestion (i.e., a result of hand-to-mouth activity) and dermal contact.

The risk characterization sediment data set is presented in Attachment 1, Table 2. The sediment data summarized in Table 1 were used to estimate exposures to park visitors.

### 2.3 Exposure Assumptions

Only a young child recreational visitor (1 to 6-year old) is evaluated in an IH Evaluation because the exposure period for the IH Evaluation is limited to five years. Outdoor exposures to COPCs in sediment are assumed to occur for 30 days/year (1 day/week for

30 weeks/year). The exposure duration for non-cancer endpoints of toxicity was averaged over 30 weeks. The average weight of the child was assumed to be 14.6 kilograms. Incidental ingestion of sediment was set at 100 milligrams/day for the child. Dermal contact with COPCs in sediment was evaluated using a sediment adherence factor of 1 mg/cm<sup>2</sup> which assumes exposure via the face, hands, forearms, lower legs, and feet (2,231 cm<sup>2</sup>). MassDEP's Park Visitor IH Shortform was used to evaluate this scenario, with applicable modification for sediment. The Shortform for the ingestion and dermal contact pathways is presented in Attachment 3.

## 2.4 Exposure Point Concentrations

Exposure Point Concentrations (EPCs) represent the COPC concentrations that a receptor may come in contact with at the exposure point. EPCs for this risk characterization were derived from the sediment analytical data tabulated in Attachment 1, Table 2.

For the COPCs 95% Upper Confidence Limits on the arithmetic mean concentration have been used as EPCs, except for hexavalent chromium for which the maximum estimated concentration was used as the EPC. The Upper Confidence Limits were calculated using EPA's software program "ProUCL Statistical Software." ProUCL tests for normality, lognormality, and gamma distribution of a data set, and computes a conservative and stable Upper Confidence Limit of the population mean. Based on the data distribution, ProUCL computes the Upper Confidence Limit of the population mean using appropriate statistical methods. ProUCL outputs are provided in Attachment 2. Table 1 presents the COPC EPCs and the statistical test used by ProUCL to determine the value.

## 2.5 Estimation of Chemical Intake

To evaluate the risk of harm to recreational visitors, the intake of each COPC must be estimated, a process which involves assessing the amount of material in contact with the receptor and the amount actually available for absorption by the body. This assessment is achieved through the calculation of an average daily dose (ADD) for each COPC and for each route of exposure. Compound-specific and exposure route-specific Relative Absorption Factors (RAFs) are used in the ADD equations to convert an exposure (amount) to a dose (amount per unit body weight).

The general ADD equation is as follows and is consistent with that provided in MassDEP, 1995:

$$\text{ADD} = \frac{\text{Total Amount of Chemical Taken In}}{(\text{Body Weight}) * (\text{Averaging Period})}$$

The specific ADD equations for the various exposure pathways evaluated are provided below:

Incidental Ingestion of Sediment

$$\text{ADD} = \frac{(\text{EPC}) * (\text{Ingestion Rate}) * (\text{Exposure Frequency}) * (\text{Exposure Period}) * \text{RAF}}{(\text{Body Weight}) * (\text{Averaging Period})}$$

Dermal Contact with Sediment

$$\text{ADD} = \frac{(\text{EPC}) * (\text{Surface Area}) * (\text{Exposure Frequency}) * (\text{Exposure Period}) * (\text{Adherence Factor}) * \text{RAF}}{(\text{Body Weight}) * (\text{Averaging Period})}$$

Exposure assumptions and the specific equations used to calculate ADDs are provided in the Shortform included in Attachment 3. The ADD values calculated for subchronic exposures were compared to the toxicity values (e.g., RfDs, RfCs, and SFs) discussed in Section 3. This comparison provides a numerical estimate of the levels of risk and the potential for adverse health effects to occur due to exposure to COPCs, as described in Section 3.

## **3.0 DOSE-RESPONSE ASSESSMENT**

The Dose-Response Assessment utilizes published literature describing epidemiological (i.e., human) or toxicological (i.e., laboratory animal) studies to evaluate the potential non-carcinogenic and carcinogenic responses associated with exposure to doses of the selected COPCs. The information from the Dose-Response Assessment is used in conjunction with information from the Exposure Assessment (Section 2) to estimate the risk and hazard generated by each COPC from an exposure (Section 4).

### **3.1 Non-Carcinogenic Dose-Response Assessment**

The toxicity values used in this Dose-Response Assessment of COPCs are the Reference Doses (RfDs) for oral and dermal exposures. RfD values provide an estimate of the daily dose of the COPC to which an individual may be exposed without an appreciable risk of adverse non-cancer health effects (including organ damage or reproductive effects) appearing during their lifetime. RfD values assume that a threshold dose exists below which there will be minimal risk for adverse effects to occur.

The subchronic RfD values used for IH Evaluations are based on defined, less than lifetime exposures, and are approximate doses derived from an available No Observed Adverse Effect Level (NOAEL) or the Lowest Observed Adverse Effect Level (LOAEL). Subchronic toxicity values are appropriate for use in evaluating risks to recreational visitors for an IH situation, who are assumed to be exposed for a maximum of five years rather than their entire lifetime.

RAFs are used to account for differences between the method of administration in the study on which the RfD is based and the applicable routes of exposure. These values vary with the medium and route of exposure.

The RfD values used in this IH Evaluation are those values used by MassDEP in the 2015 Shortforms (MassDEP, 2015). Subchronic RfDs and medium-specific RAFs are listed in the Shortform documentation (Attachment 3).

### **3.2 Carcinogenic Dose-Response Assessment**

The U.S. EPA has developed a system for classifying chemicals according to the likelihood that the compound is a human carcinogen. This system groups contaminants into five classes based upon the weight-of-evidence (of carcinogenicity) of the available data. Per MassDEP risk characterization guidelines (Section 10.2.3 of MassDEP, 1995), class A, B, and C carcinogens are evaluated in a Method 3 risk characterization. The oral slope factors (SFs) used in this risk characterization are those values used by MassDEP in the 2015 Shortforms (MassDEP, 2015). Carcinogenic toxicity values (SFs) are presented in the Shortform documentation (Attachment 3).

## 4.0 RISK CHARACTERIZATION

To characterize the risk of harm to human health from potential exposures to sediment, carcinogenic and non-carcinogenic risks were calculated for the young child recreational visitor, and the cumulative receptor risk values were compared to the MassDEP IH Risk Limits to assess whether an IH exists.

To estimate non-carcinogenic hazards, the Hazard Quotient was calculated by dividing the ADD computed in the Exposure Assessment (Section 2) by the RfD or RfC identified in the Dose-Response Assessment (Section 3). The cumulative Hazard Index (HI) was subsequently calculated by summing the hazard quotients for the exposure pathways applicable to the receptor. The HI for the COPCs is compared to the MCP Non-Carcinogenic Risk Limit of 1 for compounds with the potential to cause serious effects (e.g., lead) and to an HI of 10 for all other COPCs (310 CMR 40.0955(2)(c)) to establish whether an IH exists.

To calculate the Excess Lifetime Cancer Risk (ELCR), the Lifetime Average Daily Dose (LADD) estimated in the Exposure Assessment is multiplied by the SF or UR identified in the Dose-Response Assessment. The Total Cancer Risk for the receptor is subsequently computed by summing the ELCR values for the exposure pathways applicable to the receptor. The Total Cancer Risk is then compared to the Total Cancer Risk Limit of  $1E-05$  (310 CMR 40.0955(2)(b)) to establish whether an IH exists.

Table 2 presents a summary of the total risks and hazards for the recreational visitor. Individual COPC, pathway and route-specific HQs and ELCRs are shown in Attachment 3. As shown on Table 2 and in Attachment 3, HIs and ELCRs for the recreational visitor do not exceed MassDEP Risk Limits for an IH. The total ELCR is less than  $1E-05$ , the total HI is less than 10, and the lead HI is less than 1.

## 5.0 IMMEDIATE HAZARD EVALUATION CONCLUSIONS

HIs and ELCRs for the recreational visitor do not exceed the MassDEP Risk Limits for an IH. The total ELCR is less than 1E-05, the total HI is less than 10, and the lead HI is less than 1. Therefore, the concentrations of the COPCs detected in Kings Cove sediment do not present an IH.

The IH Evaluation was conducted in a manner consistent with the MCP, including as specified at 310 CMR 40.0426, 310 CMR 40.0951 through 40.0955, and in MassDEP's Guidance for Disposal Site Risk Characterization (MassDEP, 1995 and updates).

DRAFT

## 6.0 REFERENCES

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## **TABLES**



**Table 1**  
**Sediment Exposure Point Concentrations**  
**90 Bridge Street**  
**Weymouth, Massachusetts**

				# of Samples	# of Detects	Freq. of Detects	Min. of Detects (mg/kg)	Max. of Detects (mg/kg)	Location of Max. Detected	Min. of Non-Detects (mg/kg)	Max. of Non-Detects (mg/kg)	Mean Concentration (mg/kg)	EPC (mg/kg)	EPC Rationale
Analysis	Analyte	Unit	S-1/GW-3											
<b>Metals, total</b>														
	Arsenic	mg/kg	20	16	16	100.0%	11	<b>77.6</b>	SL2-10-N5	--	--	2.5E+01	<b>3.3E+01</b>	95% Modified-t UCL
	Chromium	mg/kg	1,000	14	14	100.0%	11	<b>250</b>	SL1-08	--	--	3.9E+01	5.9E+01	95% H-UCL
	Chromium, Hexavalent	mg/kg	100	1	1	100.0%	23.5	<b>23.5</b>	SL1-08	--	--	2.4E+01	2.4E+01	Maximum of Detects
	Lead	mg/kg	200	14	14	100.0%	30	<b>580</b>	SL2-05	--	--	9.5E+01	1.4E+02	95% H-UCL
	Nickel	mg/kg	600	14	14	100.0%	21	<b>6100</b>	SL1-07	--	--	6.4E+02	<b>5.1E+03</b>	99% Chebyshev (Mean, Sd) UCL
	Vanadium	mg/kg	400	14	14	100.0%	97	<b>13000</b>	SL1-07	--	--	1.8E+03	<b>6.1E+03</b>	95% Chebyshev (Mean, Sd) UCL

**Notes:**

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

EPC - Exposure point concentration.

**Values shown in bold and shaded type exceed the listed sediment Screening Value.**

UCL - Upper Confidence Limit.

**Table 2**  
**Summary of Risks and Hazards**  
**90 Bridge Street**  
**Weymouth, Massachusetts**

	<b>HI</b>	<b>ELCR</b>
	<b>RECREATIONAL VISITOR</b> (0 to 0.5-foot interval)	
<b>Sediment:</b>		
Incidental Ingestion	1E+00	1E-06
Dermal Contact	3E+00	1E-06
Total*	4E+00	2E-06

**Notes:**

HI - Hazard Index; compared to total HI of 10.

ELCR - Excess Lifetime Cancer Risk; compared to total ELCR of 1E-05.

\* The lead HI is less than 1.

**FIGURE**



**LEGEND:**

- EXTENT OF SITE ADDRESSED BY IMMEDIATE RESPONSE ACTION.
- MEAN HIGH WATER
- SEDIMENT SAMPLE LOCATION
- SEDIMENT SAMPLE LOCATION NOT SUBMITTED FOR LABORATORY ANALYSIS.



<b>PROJECT:</b>		<b>90 Bridge Street Weymouth, Massachusetts</b>	
<b>TITLE:</b>			
<b>SEDIMENT SAMPLING LOCATION MAP</b>			
<b>DRAWN BY:</b> MAN	<b>PROJ NO.:</b>	414883	
<b>CHECKED BY:</b> GP	<b>FIGURE 1</b>		
<b>APPROVED BY:</b> JD			
<b>DATE:</b> JAN. 2021			
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600	
<b>FILE NO.:</b>		sediment_sampling_2021_01_11.dwg	

## **ATTACHMENTS**

**ATTACHMENT 1**  
**SEDIMENT DATA**

**Table 1. Summary of Analytical Results for Sediment Samples  
90 Bridge Street  
Weymouth, Massachusetts**

Sample Location:		SL1-01	SL1-02	SL1-03	SL1-04	SL1-05	SL1-06	SL1-07		SL1-08	SL1-08-E2	SL1-8-N2	SL1-8-W2	SL1-09	SL1-10	SL2-01	SL2-02	SL2-03	SL2-04		SL2-05	SL2-06				
Analysis	Analyte	Unit	S-1/GW-3																							
			Sample Name:	SL1-1 (0-0.5)	SL1-2 (0-0.5)	SL1-3 (0-0.5)	SL1-4 (0-0.5)	SL1-5 (0-0.5)	SL1-6 (0-0.5)	SL1-7 (0-0.5)	DUP-1	SL1-8 (0-0.5)	SL1-8-E2 0-0.5	SL1-8-N2 0-0.5	DUP1	SL1-8-W2 0-0.5	SL1-9 (0-0.5)	SL1-10 (0-0.5)	SL2-1 (0-0.5)	SL2-2 (0-0.5)	SL2-3 (0-0.5)	SL2-4 (0-0.5)	DUP-2	SL2-5 (0-0.5)	SL2-6 (0-0.5)	
			Lab Sample ID:	L2050541-12	L2050541-13	L2050541-14	L2050541-15	L2050541-16	L2050541-17	L2050541-18	L2050541-42	L2050541-19	L2057799-06	L2057799-04	L2057799-01	L2057799-07	L2050541-20	L2050541-21	L2050541-22	L2050541-23	L2050541-24	L2050541-25	L2050541-43	L2050541-26	L2050541-27	
			Sample Depth:	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	
			Sample Date:	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	
<b>EPH</b>																										
	C9-C18 Aliphatics	mg/kg	1,000	8.95 U	8.58 U	9.38 U	8.52 U	8.16 U	7.90 U	8.11 U	NA	7.50 U	NA	NA	NA	NA	7.57 U	10.1 U	10.4 U	11.6 U	11.6 U	8.57 U	NA	9.35 U	9.78 U	
	C19-C36 Aliphatics	mg/kg	3,000	8.95 U	8.58 U	9.38 U	8.52 U	8.16 U	7.90 U	8.11 U	NA	7.50 U	NA	NA	NA	NA	7.57 U	10.1 U	10.4 U	11.6 U	11.6 U	8.57 U	NA	9.35 U	9.78 U	
	C11-C22 Aromatics	mg/kg	1,000	14.5	8.58 U	14.4	14.0	8.16 U	7.90 U	9.62	NA	7.50 U	NA	NA	NA	NA	7.57 U	62.2	34.1	30.9	11.6 U	8.57 U	NA	9.35 U	18.5	
<b>PAHs</b>																										
	Naphthalene	mg/kg	500	0.0418	0.00525	0.0102	0.0147	0.0229	0.0320	0.0168	0.0287	0.0154	NA	NA	NA	NA	0.0152	0.0156	0.0400	0.0383	0.0453	0.00702	0.00530 U	0.0127	0.0209	
	2-Methylnaphthalene	mg/kg	300	0.0295	0.00686	0.0198	0.0349	0.0286	0.0205	0.0301	0.0614	0.0279	NA	NA	NA	NA	0.0330	0.0236	0.1	0.0753	0.0684	0.0111	0.00744	0.0162	0.0297	
	Acenaphthylene	mg/kg	10	0.0516	0.0497	0.0654	0.0156	0.0233	0.00922	0.00770	0.00947	0.00604	NA	NA	NA	NA	0.00467 U	0.0128	0.14	0.0316	0.0198	0.00524 U	0.00852	0.0148	0.0777	
	Acenaphthene	mg/kg	1,000	0.0716	0.00525 U	0.00548 U	0.00502 U	0.0235	0.00742	0.00577	0.00937	0.00443 U	NA	NA	NA	NA	0.00467 U	0.00593 U	0.0166	0.0133	0.0156	0.00524 U	0.00530 U	0.00651	0.0267	
	Fluorene	mg/kg	1,000	0.0545	0.00525 U	0.00966	0.00502 U	0.0197	0.00552	0.00630	0.00614	0.00443 U	NA	NA	NA	NA	0.00467 U	0.00593 U	0.0193	0.0139	0.0157	0.00524 U	0.00530 U	0.00652	0.0478	
	Phenanthrene	mg/kg	500	0.466	0.0826	0.153	0.106	0.142	0.0869	0.126	0.223	0.0542	NA	NA	NA	NA	0.0822	0.0864	0.392	0.186	0.22	0.0239	0.0269	0.0483	0.611	
	Anthracene	mg/kg	1,000	0.134	0.0387	0.0594	0.0183	0.0479	0.0259	0.0144	0.0268	0.00886	NA	NA	NA	NA	0.00796	0.0182	0.134	0.0628	0.0540	0.00524 U	0.00752	0.0144	0.147	
	Fluoranthene	mg/kg	1,000	0.829	0.305	0.386	0.103	0.238	0.122	0.114	0.268	0.0412	NA	NA	NA	NA	0.0495	0.128	1.21	0.418	0.241	0.0248	0.0585	0.0904	0.995	
	Pyrene	mg/kg	1,000	0.62	0.241	0.317	0.108	0.193	0.0968	0.101	0.251	0.0372	NA	NA	NA	NA	0.0627	0.104	0.989	0.321	0.207	0.0240	0.0491	0.0811	0.812	
	Benzo(a)anthracene	mg/kg	7	0.422	0.186	0.235	0.0626	0.128	0.0757	0.0662	0.146	0.0261	NA	NA	NA	NA	0.0369	0.0613	0.669	0.199	0.127	0.0153	0.0332	0.0508	0.457	
	Chrysene	mg/kg	70	0.43	0.182	0.256	0.0983	0.16	0.103	0.116	0.157	0.0507	NA	NA	NA	NA	0.0661	0.103	0.84	0.293	0.179	0.0648	0.0379	0.0647	0.501	
	Benzo(b)fluoranthene	mg/kg	7	0.404	0.166	0.213	0.0726	0.167	0.0974	0.0955	0.152	0.0391	NA	NA	NA	NA	0.0500	0.0967	0.846	0.321	0.139	0.0223	0.0512	0.0851	0.396	
	Benzo(k)fluoranthene	mg/kg	70	0.32	0.149	0.192	0.0475	0.132	0.0566	0.0506	0.0994	0.0205	NA	NA	NA	NA	0.0224	0.0685	0.633	0.185	0.107	0.0149	0.0274	0.0472	0.283	
	Benzo(a)pyrene	mg/kg	2	0.403	0.18	0.23	0.0672	0.152	0.0617	0.0698	0.122	0.0265	NA	NA	NA	NA	0.0381	0.0777	0.789	0.249	0.13	0.0175	0.0351	0.0643	0.389	
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	0.298	0.123	0.145	0.0501	0.133	0.0491	0.0626	0.0996	0.0208	NA	NA	NA	NA	0.0314	0.0736	0.658	0.215	0.104	0.0163	0.0324	0.0622	0.274	
	Dibenzo(a,h)anthracene	mg/kg	0.7	0.0860	0.0280	0.0376	0.0170	0.0394	0.0136	0.0178	0.0253	0.00783	NA	NA	NA	NA	0.0144	0.0179	0.147	0.0506	0.0319	0.00524 U	0.00825	0.0179	0.0697	
	Benzo(ghi)perylene	mg/kg	1,000	0.256	0.114	0.141	0.0596	0.127	0.0477	0.0674	0.101	0.0253	NA	NA	NA	NA	0.0360	0.0855	0.632	0.209	0.108	0.0170	0.0333	0.0622	0.263	
<b>Metals, total</b>																										
	Antimony	mg/kg	20	2.1 U	2.1 U	2.3 U	2.4	2.2	1.9 U	1.9 U	2.2	1.8 U	NA	NA	NA	NA	1.8 U	2.5 U	2.4 U	2.7 U	2.7 U	2.1 U	2.2 U	2.3 U	2.3 U	
	Arsenic	mg/kg	20	11	14	22	30	13	11	18	10	15	NA	NA	NA	NA	18	24	14	15	22	19	15	16	24	
	Barium	mg/kg	1,000	14	14	12	9.8	17	17	16	20	30	NA	NA	NA	NA	20	17	18	29	40	13	14	21	23	
	Beryllium	mg/kg	90	0.39 U	0.76	0.60	0.59	0.62	0.58	0.45	0.41	0.54	NA	NA	NA	NA	0.59	0.78	0.60	0.62	0.89	0.42	0.51	0.60	0.72	
	Cadmium	mg/kg	70	0.26 U	0.26 U	0.28 U	0.25 U	0.25 U	0.23 U	0.24 U	0.23 U	0.23 U	NA	NA	NA	NA	0.22 U	0.31 U	0.30 U	0.34 U	0.34 U	0.26 U	0.28 U	0.29 U	0.29 U	
	Chromium (III)	mg/kg	1,000	13	20	11	11	16	18	30	17	250	28.7	13.2	16.4	18.4	13	21	18	32	43	14	12	24	24	
	Chromium (VI)	mg/kg	100	NA	NA	NA	NA	NA	NA	NA	NA	23.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Lead	mg/kg	200	51	48	33	50	47	58	30	25	53	NA	NA	NA	NA	54	67	47	78	100	57	40	580	100	
	Mercury	mg/kg	20	0.107 U	0.096 U	0.102 U	0.098 U	0.103 U	0.081 U	0.083 U	0.084 U	0.088 U	NA	NA	NA	NA	0.084 U	0.100 U	0.126 U	0.198	0.221	0.103 U	0.100 U	0.098 U	0.174	
	Nickel	mg/kg	600	13	47	21	100	46	77	6,100	1,000	2,100	NA	NA	NA	NA	60	24	41	93	64	28	34	170	94	
	Selenium	mg/kg	400	2.6 U	2.6 U	2.8 U	2.5 U	2.5 U	2.3 U	2.4 U	2.3 U	2.3 U	NA	NA	NA	NA	2.2 U	3.1 U	3.0 U	3.4 U	3.4 U	2.6 U	2.8 U	2.9 U	2.9 U	
	Silver	mg/kg	100	0.65 U	0.65 U	0.71 U	0.63 U	0.63 U	0.58 U	0.59 U	0.57 U	0.58 U	NA	NA	NA	NA	0.56 U	0.77 U	0.75 U	0.84 U	0.85 U	0.65 U	0.70 U	0.72 U	0.72 U	
	Thallium	mg/kg	8	0.52 U	0.52 U	0.57 U	0.50 U	0.50 U	0.47 U	0.47 U	0.45 U	0.46 U	NA	NA	NA	NA	0.45 U	0.62 U	0.60 U	0.67 U	0.68 U	0.52 U	0.56 U	0.29 U	0.58 U	
	Vanadium	mg/kg	400	37	300	230	630	160	1,100	13,000	6,000	7,200	NA	NA	NA	NA	450	120	150	1,400	220	61	100	480	410	
	Zinc	mg/kg	1,000	48	84	50	47	82	59	80	61	72	NA	NA	NA	NA	81	110	73	110	130	53	66	190	110	
<b>General Chemistry</b>																										
	Chromium (VI)	mg/kg	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.932 U	0.957 U	1.54	0.951 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:  
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).  
umoles/g - micromhos per gram.  
NA - Sample not analyzed for the listed analyte.  
U - Analyte was not detected at specified quantitation limit.  
Values in bold indicate the analyte was detected.  
**Values shown in bold and shaded type exceed the listed sediment Screening Value.**

EPH - Extractable Petroleum Hydrocarbons.  
PAHs - Polycyclic Aromatic Hydrocarbons.  
Yellow - Contaminant of Potential Concern.  
Green - Beyond Site boundary.

**Table 1. Summary of Analytical Results for Sediment Samples**  
**90 Bridge Street**  
**Weymouth, Massachusetts**

Sample Location:		SL2-07	SL2-08	SL2-09	SL2-10	SL2-10-E5	SL2-10-N5	SL2-10-N10	SL2-10-S5		SL2-10-W5	SL3-01	SL3-02	SL3-03	SL3-04	SL3-05	SL3-06	SL3-07	SL3-08	SL3-09	SL3-10	
Sample Name:		SL2-7 (0-0.5)	SL2-8 (0-0.5)	SL2-9 (0-0.5)	SL2-10 (0-0.5)	SL2-10-E5 0-0.5	SL2-10-N5 0-0.5	SL2-10-N10 0-0.5	SL2-10-S5 0-0.5	DUP2	SL2-10-W5 0-0.5	SL3-1 (0-0.5)	SL3-2 (0-0.5)	SL3-3 (0-0.5)	SL3-4 (0-0.5)	SL3-5 (0-0.5)	SL3-6 (0-0.5)	SL3-7 (0-0.5)	SL3-8 (0-0.5)	SL3-9 (0-0.5)	SL3-10 (0-0.5)	
Lab Sample ID:		L2050541-28	L2050541-29	L2050541-30	L2050541-31	L2057799-14	L2057799-16	L2100350-01	L2057799-08	L2057799-02	L2057799-11	L2050541-32	L2050541-33	L2050541-34	L2050541-35	L2050541-36	L2050541-37	L2050541-38	L2050541-39	L2050541-40	L2050541-41	
Sample Depth:		0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	
Sample Date:		11/13/2020	11/13/2020	11/13/2020	11/13/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	12/28/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	
Analysis	Analyte	Unit	S-1/GW-3																			
<b>EPH</b>																						
	C9-C18 Aliphatics	mg/kg	1,000	8.35 U	7.86 U	8.70 U	8.72 U	NA	NA	NA	NA	9.63 U	28.6 U	28.8 U	10.1 U	8.92 U	32.9 U	63.8	10.5 U	27.7 U	8.46 U	
	C19-C36 Aliphatics	mg/kg	3,000	8.35 U	7.86 U	8.70 U	8.72 U	NA	NA	NA	NA	51.2	43.5	28.8 U	13.6	8.92 U	32.9 U	31.1 U	13.9	27.7 U	8.46 U	
	C11-C22 Aromatics	mg/kg	1,000	8.35 U	7.86 U	8.70 U	38.5	NA	NA	NA	NA	9.63 U	77.4	75.1	18.3	8.92 U	32.9 U	31.1 U	15.7	46.0	8.46 U	
<b>PAHs</b>																						
	Naphthalene	mg/kg	500	0.00900	0.0176	0.0104	0.00745	NA	NA	NA	NA	0.0307	0.104	0.0297	0.0170	0.00662	0.0292	0.0156	0.0188	0.0454	0.0109	
	2-Methylnaphthalene	mg/kg	300	0.0147	0.0326	0.0126	0.00708	NA	NA	NA	NA	0.0483	0.122	0.0607	0.0332	0.0110	0.0506	0.0233	0.0339	0.0604	0.0146	
	Acenaphthylene	mg/kg	10	0.00514	0.0135	0.00520	0.00553	NA	NA	NA	NA	0.0687	0.0941	0.0310	0.0174	0.00551	0.0343	0.0154	0.0306	0.0142	0.00637	
	Acenaphthene	mg/kg	1,000	0.00497	0.00461	0.00520	0.00553	NA	NA	NA	NA	0.0262	0.17	0.0119	0.0105	0.00551	0.0101	0.00675	0.00931	0.0152	0.00482	
	Fluorene	mg/kg	1,000	0.00497	0.00461	0.00520	0.00553	NA	NA	NA	NA	0.0294	0.13	0.0160	0.0186	0.00551	0.0184	0.00825	0.0107	0.0155	0.00482	
	Phenanthrene	mg/kg	500	0.0294	0.0510	0.0321	0.0206	NA	NA	NA	NA	0.616	1.2	0.271	0.182	0.0258	0.244	0.107	0.183	0.226	0.0497	
	Anthracene	mg/kg	1,000	0.00697	0.0176	0.00667	0.00553	NA	NA	NA	NA	0.148	0.336	0.0550	0.0464	0.00694	0.0465	0.0272	0.0515	0.0336	0.0136	
	Fluoranthene	mg/kg	1,000	0.0403	0.0922	0.0616	0.0372	NA	NA	NA	NA	1.5	2.46	0.597	0.322	0.0625	0.502	0.262	0.393	0.435	0.0833	
	Pyrene	mg/kg	1,000	0.0425	0.0828	0.0497	0.0323	NA	NA	NA	NA	1.16	1.8	0.464	0.275	0.0489	0.373	0.201	0.314	0.347	0.0686	
	Benzo(a)anthracene	mg/kg	7	0.0286	0.0550	0.0307	0.0214	NA	NA	NA	NA	0.842	1.05	0.318	0.183	0.0373	0.251	0.133	0.228	0.178	0.0472	
	Chrysene	mg/kg	70	0.0403	0.0713	0.0393	0.0300	NA	NA	NA	NA	0.936	1.29	0.321	0.176	0.0428	0.266	0.143	0.237	0.232	0.0554	
	Benzo(b)fluoranthene	mg/kg	7	0.0443	0.0742	0.0436	0.0308	NA	NA	NA	NA	1.13	1.27	0.392	0.193	0.0482	0.327	0.189	0.338	0.198	0.0686	
	Benzo(k)fluoranthene	mg/kg	70	0.0249	0.0463	0.0302	0.0216	NA	NA	NA	NA	0.621	1.09	0.242	0.102	0.0328	0.178	0.116	0.176	0.14	0.0404	
	Benzo(a)pyrene	mg/kg	2	0.0340	0.0612	0.0357	0.0248	NA	NA	NA	NA	0.898	1.09	0.28	0.132	0.0336	0.22	0.131	0.229	0.139	0.0444	
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	0.0301	0.0545	0.0328	0.0228	NA	NA	NA	NA	0.762	1.01	0.231	0.0989	0.0292	0.193	0.115	0.198	0.11	0.0408	
	Dibenzo(a,h)anthracene	mg/kg	0.7	0.00736	0.0146	0.00721	0.00553	NA	NA	NA	NA	0.169	0.248	0.0587	0.0260	0.00690	0.0497	0.0255	0.0471	0.0303	0.0104	
	Benzo(ghi)perylene	mg/kg	1,000	0.0312	0.0570	0.0327	0.0237	NA	NA	NA	NA	0.726	0.969	0.245	0.101	0.0304	0.197	0.119	0.194	0.109	0.0399	
<b>Metals, total</b>																						
	Antimony	mg/kg	20	2.0 U	2.1	2.1 U	2.1 U	NA	NA	NA	NA	2.3 U	2.4 U	2.7 U	2.3 U	2.2 U	2.8 U	2.6 U	2.5 U	2.2 U	2.0 U	
	Arsenic	mg/kg	20	2.3	2.0	8.0	43	14.9	77.6	8.79	16.3	24.4	17.8	10	9.0	10	9.9	15	21	12	5.1	
	Barium	mg/kg	1,000	14	19	6.3	13	NA	NA	NA	NA	21	28	16	17	11	31	30	32	18	6.7	
	Beryllium	mg/kg	90	0.54	0.55	0.39	0.59	NA	NA	NA	NA	0.44 U	0.56	0.51	0.52	0.48	0.77	0.77	0.58	0.45	0.38 U	
	Cadmium	mg/kg	70	0.25 U	0.23 U	0.26 U	0.27 U	NA	NA	NA	NA	0.29 U	0.30 U	0.33 U	0.29 U	0.27 U	0.35 U	0.33 U	0.31 U	0.28 U	0.25 U	
	Chromium (III)	mg/kg	1,000	14	28	10	13	NA	NA	NA	NA	38	23	22	20	13	40	37	37	18	8.0	
	Chromium (VI)	mg/kg	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Lead	mg/kg	200	31	40	22	42	NA	NA	NA	NA	50	47	30	29	29	74	55	52	37	13	
	Mercury	mg/kg	20	0.095 U	0.076 U	0.110 U	0.100 U	NA	NA	NA	NA	0.106 U	0.120	0.120	0.107 U	0.092 U	0.206	0.167	0.191	0.101 U	0.086 U	
	Nickel	mg/kg	600	32	40	17	45	NA	NA	NA	NA	45	32	25	40	78	46	28	24	19	11	
	Selenium	mg/kg	400	2.5 U	2.3 U	2.6 U	2.7 U	NA	NA	NA	NA	2.9 U	3.0 U	3.3 U	2.9 U	2.7 U	3.5 U	3.3 U	3.1 U	2.8 U	2.5 U	
	Silver	mg/kg	100	0.62 U	0.58 U	0.65 U	0.67 U	NA	NA	NA	NA	0.73 U	0.76 U	0.83 U	0.72 U	0.68 U	0.88 U	0.82 U	0.78 U	0.70 U	0.63 U	
	Thallium	mg/kg	8	0.50 U	0.46 U	0.52 U	0.54 U	NA	NA	NA	NA	0.58 U	0.61 U	0.67 U	0.57 U	0.54 U	0.70 U	0.65 U	0.63 U	0.56 U	0.50 U	
	Vanadium	mg/kg	400	200	110	49	97	NA	NA	NA	NA	110	100	130	140	310	180	100	120	80	23	
	Zinc	mg/kg	1,000	74	120	81	150	NA	NA	NA	NA	110	92	70	59	63	84	84	81	52	21	
<b>General Chemistry</b>																						
	Chromium (VI)	mg/kg	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

**Notes:**  
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).  
umoles/g - micromoles per gram.  
NA - Sample not analyzed for the listed analyte.  
U - Analyte was not detected at specified quantitation limit.  
Values in **bold** indicate the analyte was detected.  
**Values shown in bold and shaded type exceed the listed sediment Screening Value.**  
EPH - Extractable Petroleum Hydrocarbons.  
PAHs - Polycyclic Aromatic Hydrocarbons.  
Contaminant of Potential Concern.  
Beyond Site boundary.



**Table 2. Sediment Risk Characterization Data Set**  
**90 Bridge Street**  
**Weymouth, Massachusetts**

Sample Location:		SL1-03	SL1-04	SL1-06	SL1-07	SL1-08	SL1-09	SL1-10	SL2-02	SL2-03	SL2-05	SL2-06	SL2-07	SL2-10	SL2-10-N5	SL2-10-S5	SL3-07		
Sample Name:		SL1-3 (0-0.5)	SL1-4 (0-0.5)	SL1-6 (0-0.5)	SL1-7 (0-0.5)	SL1-8 (0-0.5)	SL1-9 (0-0.5)	SL1-10 (0-0.5)	SL2-2 (0-0.5)	SL2-3 (0-0.5)	SL2-5 (0-0.5)	SL2-6 (0-0.5)	SL2-7 (0-0.5)	SL2-10 (0-0.5)	SL2-10-N5 0-0.5	SL2-10-S5 0-0.5	SL3-7 (0-0.5)		
Lab Sample ID:		L2050541-14	L2050541-15	L2050541-17	L2050541-18	L2050541-19	L2050541-20	L2050541-21	L2050541-23	L2050541-24	L2050541-26	L2050541-27	L2050541-28	L2050541-31	L2057799-16	L2057799-08	L2050541-38		
Sample Depth:		0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft		
Sample Date:		11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	11/13/2020	12/28/2020	12/28/2020	11/13/2020		
Analysis	Analyte	Unit	S-1/GW-3																
<b>Metals, total</b>																			
	Arsenic	mg/kg	20	<b>22</b>	<b>30</b>	<b>11</b>	<b>18</b>	<b>15</b>	<b>18</b>	<b>24</b>	<b>15</b>	<b>22</b>	<b>16</b>	<b>24</b>	<b>23</b>	<b>43</b>	<b>77.6</b>	<b>24.4</b>	<b>21</b>
	Chromium (III)	mg/kg	1,000	<b>11</b>	<b>11</b>	<b>18</b>	<b>30</b>	<b>250</b>	<b>13</b>	<b>21</b>	<b>32</b>	<b>43</b>	<b>24</b>	<b>24</b>	<b>14</b>	<b>13</b>	NA	NA	<b>37</b>
	Chromium (VI)	mg/kg	100	NA	NA	NA	NA	<b>23.5</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lead	mg/kg	200	<b>33</b>	<b>50</b>	<b>58</b>	<b>30</b>	<b>53</b>	<b>54</b>	<b>67</b>	<b>78</b>	<b>100</b>	<b>580</b>	<b>100</b>	<b>31</b>	<b>42</b>	NA	NA	<b>55</b>
	Nickel	mg/kg	600	<b>21</b>	<b>100</b>	<b>77</b>	<b>6,100</b>	<b>2,100</b>	<b>60</b>	<b>24</b>	<b>93</b>	<b>64</b>	<b>170</b>	<b>94</b>	<b>32</b>	<b>45</b>	NA	NA	<b>28</b>
	Vanadium	mg/kg	400	<b>230</b>	<b>630</b>	<b>1,100</b>	<b>13,000</b>	<b>7,200</b>	<b>450</b>	<b>120</b>	<b>1,400</b>	<b>220</b>	<b>480</b>	<b>410</b>	<b>200</b>	<b>97</b>	NA	NA	<b>100</b>

**Notes:**

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

NA - Sample not analyzed for the listed analyte.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded type exceed the listed standard.

**ATTACHMENT 2**

**PROUCL OUTPUT**

	A	B	C	D	E	F	G	H	I	J	K	L				
1	<b>UCL Statistics for Data Sets with Non-Detects</b>															
2																
3	User Selected Options															
4	Date/Time of Computation			ProUCL 5.11/8/2021 12:24:55 AM												
5	From File			ProUCL_import.xls												
6	Full Precision			OFF												
7	Confidence Coefficient			95%												
8	Number of Bootstrap Operations			2000												
9																
10																
11	<b>Arsenic</b>															
12																
13	<b>General Statistics</b>															
14	Total Number of Observations				16				Number of Distinct Observations				12			
15									Number of Missing Observations				0			
16	Minimum				11				Mean				25.25			
17	Maximum				77.6				Median				22			
18	SD				15.77				Std. Error of Mean				3.942			
19	Coefficient of Variation				0.625				Skewness				2.767			
20																
21	<b>Normal GOF Test</b>															
22	Shapiro Wilk Test Statistic				0.667				<b>Shapiro Wilk GOF Test</b>							
23	5% Shapiro Wilk Critical Value				0.887				Data Not Normal at 5% Significance Level							
24	Lilliefors Test Statistic				0.334				<b>Lilliefors GOF Test</b>							
25	5% Lilliefors Critical Value				0.213				Data Not Normal at 5% Significance Level							
26	<b>Data Not Normal at 5% Significance Level</b>															
27																
28	<b>Assuming Normal Distribution</b>															
29	<b>95% Normal UCL</b>						<b>95% UCLs (Adjusted for Skewness)</b>									
30	95% Student's-t UCL				32.16				95% Adjusted-CLT UCL (Chen-1995)				34.65			
31									95% Modified-t UCL (Johnson-1978)				32.62			
32																
33	<b>Gamma GOF Test</b>															
34	A-D Test Statistic				1.036				<b>Anderson-Darling Gamma GOF Test</b>							
35	5% A-D Critical Value				0.742				Data Not Gamma Distributed at 5% Significance Level							
36	K-S Test Statistic				0.278				<b>Kolmogorov-Smirnov Gamma GOF Test</b>							
37	5% K-S Critical Value				0.216				Data Not Gamma Distributed at 5% Significance Level							
38	<b>Data Not Gamma Distributed at 5% Significance Level</b>															
39																
40	<b>Gamma Statistics</b>															
41	k hat (MLE)				4.445				k star (bias corrected MLE)				3.653			
42	Theta hat (MLE)				5.681				Theta star (bias corrected MLE)				6.912			
43	nu hat (MLE)				142.2				nu star (bias corrected)				116.9			
44	MLE Mean (bias corrected)				25.25				MLE Sd (bias corrected)				13.21			
45									Approximate Chi Square Value (0.05)				92.93			
46	Adjusted Level of Significance				0.0335				Adjusted Chi Square Value				90.5			
47																
48	<b>Assuming Gamma Distribution</b>															
49	95% Approximate Gamma UCL (use when n>=50))				31.76				95% Adjusted Gamma UCL (use when n<50)				32.61			
50																

	A	B	C	D	E	F	G	H	I	J	K	L
51	<b>Lognormal GOF Test</b>											
52	Shapiro Wilk Test Statistic					0.892	<b>Shapiro Wilk Lognormal GOF Test</b>					
53	5% Shapiro Wilk Critical Value					0.887	Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic					0.241	<b>Lilliefors Lognormal GOF Test</b>					
55	5% Lilliefors Critical Value					0.213	Data Not Lognormal at 5% Significance Level					
56	<b>Data appear Approximate Lognormal at 5% Significance Level</b>											
57												
58	<b>Lognormal Statistics</b>											
59	Minimum of Logged Data					2.398	Mean of logged Data					3.112
60	Maximum of Logged Data					4.352	SD of logged Data					0.456
61												
62	<b>Assuming Lognormal Distribution</b>											
63	95% H-UCL					31.56	90% Chebyshev (MVUE) UCL					33.43
64	95% Chebyshev (MVUE) UCL					37.36	97.5% Chebyshev (MVUE) UCL					42.82
65	99% Chebyshev (MVUE) UCL					53.54						
66												
67	<b>Nonparametric Distribution Free UCL Statistics</b>											
68	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>											
69												
70	<b>Nonparametric Distribution Free UCLs</b>											
71	95% CLT UCL					31.73	95% Jackknife UCL					32.16
72	95% Standard Bootstrap UCL					31.57	95% Bootstrap-t UCL					43.01
73	95% Hall's Bootstrap UCL					63.92	95% Percentile Bootstrap UCL					32.09
74	95% BCA Bootstrap UCL					35.21						
75	90% Chebyshev(Mean, Sd) UCL					37.08	95% Chebyshev(Mean, Sd) UCL					42.43
76	97.5% Chebyshev(Mean, Sd) UCL					49.87	99% Chebyshev(Mean, Sd) UCL					64.48
77												
78	<b>Suggested UCL to Use</b>											
79	95% Student's-t UCL					32.16	or 95% Modified-t UCL					32.62
80	or 95% H-UCL					31.56						
81												
82	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
83	Recommendations are based upon data size, data distribution, and skewness.											
84	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
85	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
86												
87	<b>ProUCL computes and outputs H-statistic based UCLs for historical reasons only.</b>											
88	<b>H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.</b>											
89	<b>It is therefore recommended to avoid the use of H-statistic based 95% UCLs.</b>											
90	<b>Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.</b>											
91												

	A	B	C	D	E	F	G	H	I	J	K	L	
1	<b>UCL Statistics for Data Sets with Non-Detects</b>												
2													
3	User Selected Options												
4	Date/Time of Computation			ProUCL 5.112/9/2020 12:52:10 PM									
5	From File			ProUCL_import.xls									
6	Full Precision			OFF									
7	Confidence Coefficient			95%									
8	Number of Bootstrap Operations			2000									
9													
10	<b>Chromium</b>												
11													
12	<b>General Statistics</b>												
13	Total Number of Observations				14		Number of Distinct Observations				11		
14									Number of Missing Observations				0
15	Minimum				11		Mean				38.64		
16	Maximum				250		Median				22.5		
17	SD				61.66		Std. Error of Mean				16.48		
18	Coefficient of Variation				1.596		Skewness				3.571		
19													
20	<b>Normal GOF Test</b>												
21	Shapiro Wilk Test Statistic				0.443		<b>Shapiro Wilk GOF Test</b>						
22	5% Shapiro Wilk Critical Value				0.874		Data Not Normal at 5% Significance Level						
23	Lilliefors Test Statistic				0.4		<b>Lilliefors GOF Test</b>						
24	5% Lilliefors Critical Value				0.226		Data Not Normal at 5% Significance Level						
25	<b>Data Not Normal at 5% Significance Level</b>												
26													
27	<b>Assuming Normal Distribution</b>												
28	<b>95% Normal UCL</b>						<b>95% UCLs (Adjusted for Skewness)</b>						
29	95% Student's-t UCL				67.83		95% Adjusted-CLT UCL (Chen-1995)				82.56		
30							95% Modified-t UCL (Johnson-1978)				70.45		
31													
32	<b>Gamma GOF Test</b>												
33	A-D Test Statistic				1.635		<b>Anderson-Darling Gamma GOF Test</b>						
34	5% A-D Critical Value				0.756		Data Not Gamma Distributed at 5% Significance Level						
35	K-S Test Statistic				0.264		<b>Kolmogorov-Smirnov Gamma GOF Test</b>						
36	5% K-S Critical Value				0.234		Data Not Gamma Distributed at 5% Significance Level						
37	<b>Data Not Gamma Distributed at 5% Significance Level</b>												
38													
39	<b>Gamma Statistics</b>												
40	k hat (MLE)				1.209		k star (bias corrected MLE)				0.998		
41	Theta hat (MLE)				31.96		Theta star (bias corrected MLE)				38.74		
42	nu hat (MLE)				33.85		nu star (bias corrected)				27.93		
43	MLE Mean (bias corrected)				38.64		MLE Sd (bias corrected)				38.69		
44									Approximate Chi Square Value (0.05)				16.87
45	Adjusted Level of Significance				0.0312		Adjusted Chi Square Value				15.74		
46													
47	<b>Assuming Gamma Distribution</b>												
48	95% Approximate Gamma UCL (use when n>=50))				63.96		95% Adjusted Gamma UCL (use when n<50)				68.56		
49													
50	<b>Lognormal GOF Test</b>												

	A	B	C	D	E	F	G	H	I	J	K	L
51	Shapiro Wilk Test Statistic					0.813	Shapiro Wilk Lognormal GOF Test					
52	5% Shapiro Wilk Critical Value					0.874	Data Not Lognormal at 5% Significance Level					
53	Lilliefors Test Statistic					0.167	Lilliefors Lognormal GOF Test					
54	5% Lilliefors Critical Value					0.226	Data appear Lognormal at 5% Significance Level					
55	Data appear Approximate Lognormal at 5% Significance Level											
56												
57	Lognormal Statistics											
58	Minimum of Logged Data					2.398	Mean of logged Data					3.187
59	Maximum of Logged Data					5.521	SD of logged Data					0.809
60												
61	Assuming Lognormal Distribution											
62	95% H-UCL					58.76	90% Chebyshev (MVUE) UCL					55.12
63	95% Chebyshev (MVUE) UCL					65.32	97.5% Chebyshev (MVUE) UCL					79.47
64	99% Chebyshev (MVUE) UCL					107.3						
65												
66	Nonparametric Distribution Free UCL Statistics											
67	Data appear to follow a Discernible Distribution at 5% Significance Level											
68												
69	Nonparametric Distribution Free UCLs											
70	95% CLT UCL					65.75	95% Jackknife UCL					67.83
71	95% Standard Bootstrap UCL					64.27	95% Bootstrap-t UCL					177.5
72	95% Hall's Bootstrap UCL					174.8	95% Percentile Bootstrap UCL					70.64
73	95% BCA Bootstrap UCL					87						
74	90% Chebyshev(Mean, Sd) UCL					88.08	95% Chebyshev(Mean, Sd) UCL					110.5
75	97.5% Chebyshev(Mean, Sd) UCL					141.6	99% Chebyshev(Mean, Sd) UCL					202.6
76												
77	Suggested UCL to Use											
78	95% H-UCL					58.76						
79												
80	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
81	Recommendations are based upon data size, data distribution, and skewness.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
83	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
84												
85	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
86	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
87	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
88	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
89												
90												
91	Lead											
92												
93	General Statistics											
94	Total Number of Observations					14	Number of Distinct Observations					13
95							Number of Missing Observations					0
96	Minimum					30	Mean					95.07
97	Maximum					580	Median					54.5
98	SD					141.4	Std. Error of Mean					37.78
99	Coefficient of Variation					1.487	Skewness					3.582
100												

	A	B	C	D	E	F	G	H	I	J	K	L	
101	<b>Normal GOF Test</b>												
102	Shapiro Wilk Test Statistic					0.438	Shapiro Wilk GOF Test						
103	5% Shapiro Wilk Critical Value					0.874	Data Not Normal at 5% Significance Level						
104	Lilliefors Test Statistic					0.415	Lilliefors GOF Test						
105	5% Lilliefors Critical Value					0.226	Data Not Normal at 5% Significance Level						
106	<b>Data Not Normal at 5% Significance Level</b>												
107													
108	<b>Assuming Normal Distribution</b>												
109	95% Normal UCL						95% UCLs (Adjusted for Skewness)						
110	95% Student's-t UCL					162	95% Adjusted-CLT UCL (Chen-1995)					195.9	
111							95% Modified-t UCL (Johnson-1978)					168	
112													
113	<b>Gamma GOF Test</b>												
114	A-D Test Statistic					1.837	Anderson-Darling Gamma GOF Test						
115	5% A-D Critical Value					0.753	Data Not Gamma Distributed at 5% Significance Level						
116	K-S Test Statistic					0.294	Kolmogorov-Smirnov Gamma GOF Test						
117	5% K-S Critical Value					0.233	Data Not Gamma Distributed at 5% Significance Level						
118	<b>Data Not Gamma Distributed at 5% Significance Level</b>												
119													
120	<b>Gamma Statistics</b>												
121	k hat (MLE)					1.388	k star (bias corrected MLE)					1.138	
122	Theta hat (MLE)					68.48	Theta star (bias corrected MLE)					83.51	
123	nu hat (MLE)					38.87	nu star (bias corrected)					31.88	
124	MLE Mean (bias corrected)					95.07	MLE Sd (bias corrected)					89.11	
125							Approximate Chi Square Value (0.05)					19.97	
126	Adjusted Level of Significance					0.0312	Adjusted Chi Square Value					18.73	
127													
128	<b>Assuming Gamma Distribution</b>												
129	95% Approximate Gamma UCL (use when n>=50))					151.7	95% Adjusted Gamma UCL (use when n<50)					161.8	
130													
131	<b>Lognormal GOF Test</b>												
132	Shapiro Wilk Test Statistic					0.784	Shapiro Wilk Lognormal GOF Test						
133	5% Shapiro Wilk Critical Value					0.874	Data Not Lognormal at 5% Significance Level						
134	Lilliefors Test Statistic					0.2	Lilliefors Lognormal GOF Test						
135	5% Lilliefors Critical Value					0.226	Data appear Lognormal at 5% Significance Level						
136	<b>Data appear Approximate Lognormal at 5% Significance Level</b>												
137													
138	<b>Lognormal Statistics</b>												
139	Minimum of Logged Data					3.401	Mean of logged Data					4.153	
140	Maximum of Logged Data					6.363	SD of logged Data					0.743	
141													
142	<b>Assuming Lognormal Distribution</b>												
143	95% H-UCL					137.3	90% Chebyshev (MVUE) UCL					133.3	
144	95% Chebyshev (MVUE) UCL					156.6	97.5% Chebyshev (MVUE) UCL					189	
145	99% Chebyshev (MVUE) UCL					252.5							
146													
147	<b>Nonparametric Distribution Free UCL Statistics</b>												
148	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>												
149													
150	<b>Nonparametric Distribution Free UCLs</b>												





	A	B	C	D	E	F	G	H	I	J	K	L		
201	<b>Gamma Statistics</b>													
202					k hat (MLE)	0.361					k star (bias corrected MLE)	0.331		
203					Theta hat (MLE)	1781					Theta star (bias corrected MLE)	1941		
204					nu hat (MLE)	10.11					nu star (bias corrected)	9.28		
205					MLE Mean (bias corrected)	643.4					MLE Sd (bias corrected)	1118		
206									Approximate Chi Square Value (0.05)				3.497	
207					Adjusted Level of Significance	0.0312					Adjusted Chi Square Value	3.041		
208														
209	<b>Assuming Gamma Distribution</b>													
210	95% Approximate Gamma UCL (use when n>=50))				1707					95% Adjusted Gamma UCL (use when n<50)				1963
211														
212	<b>Lognormal GOF Test</b>													
213					Shapiro Wilk Test Statistic	0.784					<b>Shapiro Wilk Lognormal GOF Test</b>			
214					5% Shapiro Wilk Critical Value	0.874					Data Not Lognormal at 5% Significance Level			
215					Lilliefors Test Statistic	0.288					<b>Lilliefors Lognormal GOF Test</b>			
216					5% Lilliefors Critical Value	0.226					Data Not Lognormal at 5% Significance Level			
217	<b>Data Not Lognormal at 5% Significance Level</b>													
218														
219	<b>Lognormal Statistics</b>													
220					Minimum of Logged Data	3.045					Mean of logged Data	4.615		
221					Maximum of Logged Data	8.716					SD of logged Data	1.641		
222														
223	<b>Assuming Lognormal Distribution</b>													
224					95% H-UCL	2357					90% Chebyshev (MVUE) UCL	804		
225					95% Chebyshev (MVUE) UCL	1022					97.5% Chebyshev (MVUE) UCL	1324		
226					99% Chebyshev (MVUE) UCL	1919								
227														
228	<b>Nonparametric Distribution Free UCL Statistics</b>													
229	<b>Data do not follow a Discernible Distribution (0.05)</b>													
230														
231	<b>Nonparametric Distribution Free UCLs</b>													
232					95% CLT UCL	1374					95% Jackknife UCL	1430		
233					95% Standard Bootstrap UCL	1373					95% Bootstrap-t UCL	24956		
234					95% Hall's Bootstrap UCL	11581					95% Percentile Bootstrap UCL	1375		
235					95% BCA Bootstrap UCL	1934								
236					90% Chebyshev(Mean, Sd) UCL	1976					95% Chebyshev(Mean, Sd) UCL	2579		
237					97.5% Chebyshev(Mean, Sd) UCL	3417					99% Chebyshev(Mean, Sd) UCL	5062		
238														
239	<b>Suggested UCL to Use</b>													
240					99% Chebyshev (Mean, Sd) UCL	5062								
241														
242	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.													
243	Recommendations are based upon data size, data distribution, and skewness.													
244	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).													
245	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.													
246														
247														
248	<b>Vanadium</b>													
249														
250	<b>General Statistics</b>													

	A	B	C	D	E	F	G	H	I	J	K	L
251	Total Number of Observations					14	Number of Distinct Observations					14
252							Number of Missing Observations					0
253	Minimum					97	Mean					1831
254	Maximum					13000	Median					430
255	SD					3703	Std. Error of Mean					989.6
256	Coefficient of Variation					2.022	Skewness					2.669
257												
258	<b>Normal GOF Test</b>											
259	Shapiro Wilk Test Statistic					0.526	<b>Shapiro Wilk GOF Test</b>					
260	5% Shapiro Wilk Critical Value					0.874	Data Not Normal at 5% Significance Level					
261	Lilliefors Test Statistic					0.403	<b>Lilliefors GOF Test</b>					
262	5% Lilliefors Critical Value					0.226	Data Not Normal at 5% Significance Level					
263	<b>Data Not Normal at 5% Significance Level</b>											
264												
265	<b>Assuming Normal Distribution</b>											
266	<b>95% Normal UCL</b>						<b>95% UCLs (Adjusted for Skewness)</b>					
267	95% Student's-t UCL					3584	95% Adjusted-CLT UCL (Chen-1995)					4213
268							95% Modified-t UCL (Johnson-1978)					3701
269												
270	<b>Gamma GOF Test</b>											
271	A-D Test Statistic					1.408	<b>Anderson-Darling Gamma GOF Test</b>					
272	5% A-D Critical Value					0.793	Data Not Gamma Distributed at 5% Significance Level					
273	K-S Test Statistic					0.272	<b>Kolmogorov-Smirnov Gamma GOF Test</b>					
274	5% K-S Critical Value					0.242	Data Not Gamma Distributed at 5% Significance Level					
275	<b>Data Not Gamma Distributed at 5% Significance Level</b>											
276												
277	<b>Gamma Statistics</b>											
278	k hat (MLE)					0.501	k star (bias corrected MLE)					0.441
279	Theta hat (MLE)					3653	Theta star (bias corrected MLE)					4148
280	nu hat (MLE)					14.03	nu star (bias corrected)					12.36
281	MLE Mean (bias corrected)					1831	MLE Sd (bias corrected)					2756
282							Approximate Chi Square Value (0.05)					5.466
283	Adjusted Level of Significance					0.0312	Adjusted Chi Square Value					4.87
284												
285	<b>Assuming Gamma Distribution</b>											
286	95% Approximate Gamma UCL (use when n>=50))					4141	95% Adjusted Gamma UCL (use when n<50)					4648
287												
288	<b>Lognormal GOF Test</b>											
289	Shapiro Wilk Test Statistic					0.895	<b>Shapiro Wilk Lognormal GOF Test</b>					
290	5% Shapiro Wilk Critical Value					0.874	Data appear Lognormal at 5% Significance Level					
291	Lilliefors Test Statistic					0.162	<b>Lilliefors Lognormal GOF Test</b>					
292	5% Lilliefors Critical Value					0.226	Data appear Lognormal at 5% Significance Level					
293	<b>Data appear Lognormal at 5% Significance Level</b>											
294												
295	<b>Lognormal Statistics</b>											
296	Minimum of Logged Data					4.575	Mean of logged Data					6.246
297	Maximum of Logged Data					9.473	SD of logged Data					1.492
298												
299	<b>Assuming Lognormal Distribution</b>											
300	95% H-UCL					7185	90% Chebyshev (MVUE) UCL					3201

	A	B	C	D	E	F	G	H	I	J	K	L
301			95% Chebyshev (MVUE) UCL			4034			97.5% Chebyshev (MVUE) UCL			5189
302			99% Chebyshev (MVUE) UCL			7459						
303												
304	<b>Nonparametric Distribution Free UCL Statistics</b>											
305	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>											
306												
307	<b>Nonparametric Distribution Free UCLs</b>											
308			95% CLT UCL			3459			95% Jackknife UCL			3584
309			95% Standard Bootstrap UCL			3344			95% Bootstrap-t UCL			15246
310			95% Hall's Bootstrap UCL			11799			95% Percentile Bootstrap UCL			3512
311			95% BCA Bootstrap UCL			4516						
312			90% Chebyshev(Mean, Sd) UCL			4800			95% Chebyshev(Mean, Sd) UCL			6145
313			97.5% Chebyshev(Mean, Sd) UCL			8011			99% Chebyshev(Mean, Sd) UCL			11678
314												
315	<b>Suggested UCL to Use</b>											
316			95% Chebyshev (Mean, Sd) UCL			6145						
317												
318	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
319	Recommendations are based upon data size, data distribution, and skewness.											
320	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
321	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
322												

**ATTACHMENT 3**  
**RISK CALCULATION SHORTFORM**

**Park Visitor - Sediment Imminent Hazard Evaluation: Table PSIH-1**  
**Exposure Point Concentration (EPC)**  
**Based on Visitor Ages 1-6 (Cancer) and 1-2 (Noncancer)**

ShortForm Version 10-12

Vlookup Version v0315

**\*\*Do not insert or delete any rows\*\***

Click on empty cell below and select OHM using arrow.

ELCR (all chemicals) = 2.3E-06  
 Subchronic HI (all chemicals) = 4.2E+00

Oil or Hazardous Material	EPC (mg/kg)	ELCR <sub>ingestion</sub>	ELCR <sub>dermal</sub>	ELCR <sub>total</sub>	Subchronic		
					HQ <sub>ing</sub>	HQ <sub>derm</sub>	HQ <sub>total</sub>
ARSENIC	3.26E+01	9.8E-07	1.3E-06	2.3E-06	7.3E-02	7.3E-02	1.5E-01
CHROMIUM(III)	5.9E+01				5.2E-05	8.7E-05	1.4E-04
CHROMIUM(VI)	2.4E+01				1.6E-03	2.6E-03	4.2E-03
LEAD	1.4E+02				1.2E-01	2.4E-02	1.5E-01
NICKEL	5.1E+03				3.4E-01	1.1E+00	1.5E+00
VANADIUM	6.1E+03				9.1E-01	1.5E+00	2.4E+00

**Note! Cr(VI) limit is 200 mg/kg due to contact dermatitis.**  
**Note! Lead IH HQ limit is 1, not 10.**

**Park Visitor - Sediment: Table PSIH-2**  
**Equations to Calculate Cancer Risk for Visitor (Age 1-6 years)**

**Cancer Risk from Ingestion**

$$ELCR_{ing} = LADD_{ing} * CSF$$

$$LADD_{ing} = \frac{[OHM]_{soil} * IR_x * RAF_{c-ing} * EF_{ing} * ED * EP * C}{BW * AP_{lifetime}}$$

**Cancer Risk from Dermal Absorption**

$$ELCR_{derm} = LADD_{derm} * CSF$$

$$LADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{c-derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP_{lifetime}}$$

Vlookup Version v0315

Parameter	Value	Units
CSF	OHM specific	(mg/kg-day) <sup>-1</sup>
LADD	age/OHM specific	mg/kg-day
[OHM] <sub>soil</sub>	OHM specific	mg/kg
IR	100	mg/day
RAF <sub>c-ing</sub>	OHM specific	dimensionless
RAF <sub>c-derm</sub>	OHM specific	dimensionless
EF <sub>ing,derm</sub>	0.082	event/day
ED	1	day/event
EP	5	years
C	0.000001	kg/mg
BW	14.6	kg
AP <sub>(lifetime)</sub>	70	years
SA	2231	cm <sup>2</sup> /day
SAF	1	mg/cm <sup>2</sup>

**Park Visitor - Sediment: Table PSIH-3**  
**Equations to Calculate Noncancer Risk for Visitor (Age 1-2 years)**

Vlookup Version v0315

**Noncancer Risk from Ingestion**

$$HQ_{ing} = \frac{ADD_{ing}}{RfD_{subchronic}}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc-ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

**Noncancer Risk from Dermal Absorption**

$$HQ_{derm} = \frac{ADD_{derm}}{RfD_{subchronic}}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc-derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
[OHM] <sub>soil</sub>	OHM specific	mg/kg
IR	100	mg/day
RAF <sub>nc-ing</sub>	OHM specific	dimensionless
RAF <sub>nc-derm</sub>	OHM specific	dimensionless
EF <sub>ing,derm</sub>	0.143	event/day
ED	1	day/event
EP	0.577	years
C	0.000001	kg/mg
BW	10.7	kg
AP	0.577	year
SA	1670	cm <sup>2</sup> /day
SAF	1	mg/cm <sup>2</sup>

**Park Visitor - Sediment: Table PSIH-4**  
**Definitions and Exposure Factors**

Vlookup Version v0315

Parameter	Value	Units	Notes
ELCR - Excess Lifetime Cancer Risk	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal)
CSF - Cancer Slope Factor	chemical specific	(mg/kg-day) <sup>-1</sup>	see Table PSIH-5.
LADD - Lifetime Average Daily Dose	chemical specific	mg/kg-day	Pathway specific - see Table PSIH-2.
HQ - Hazard Quotient	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal) - see Table PSIH-3.
RfD - Reference Dose	chemical specific	mg/kg-day	see Table PSIH-5.
ADD - Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
EPC - Exposure Point Concentration	chemical specific	mg/kg	
IR - Soil Ingestion Rate	100	mg/day	MADEP. 1995. Guidance for Disposal Site Risk Characterization. Appendix Table B-3.
RAF <sub>c</sub> - Relative Absorption Factor for Cancer Effects	chemical specific	dimensionless	Adjusts estimated dose to conform to the relevant CSF. See Table PS-6
RAF <sub>NC</sub> - Relative Absorption Factor for non-Cancer Effects	chemical specific	dimensionless	Adjusts estimated dose to conform to the relevant RfD. See Table PS-6
EF <sub>subchronic</sub> - Exposure Frequency for subchronic exposure	0.143	event/day	1 event/week
EF <sub>lifetime</sub> - Exposure Frequency for chronic or lifetime exposure	0.082	event/day	1 event/week, 30 weeks/year
ED - Exposure Duration	1	day/event	
EP <sub>(1-2)</sub> - Exposure Period for age group 1-2	0.577	years	30 weeks
EP <sub>(1-6)</sub> - Exposure Period for age group 1-6	5	years	
BW <sub>(1-2)</sub> - Body Weight for age group 1-2	10.7	kg	U.S. EPA. 1997. Exposure Factors Handbook. Table 7-7, females.
BW <sub>(1-6)</sub> - Body Weight for age group 1-6	14.6	kg	Ibid
AP <sub>subchronic</sub> - Averaging Period for subchronic noncancer	0.577	years	30 weeks
AP <sub>lifetime</sub> - Averaging Period for cancer/lifetime	70	years	
SA <sub>(1-2)</sub> - Surface Area for age group 1-2	1670	cm <sup>2</sup> /day	50th percentile of face (1/3 head), forearms, hands, lower legs, and feet for females MADEP 1995 Guidance for Disposal Site Risk Characterization, Appendix Table B-2.
SA <sub>(1-6)</sub> - Surface Area for age group 1-6	2231	cm <sup>2</sup> / day	Ibid
SAF - Surface Adherence Factor	1	mg <sub>soil</sub> / cm <sup>2</sup>	All SAFs developed for ShortForm according to procedure outlined in MA DEP Technical Update: Weighted Skin-Soil Adherence Factors, April 2002



**Park Visitor - Sediment: Table PSIH-5  
Chemical-Specific Data**

Vlookup Version v0315

Oil or Hazardous Material	CSF (mg/kg-day) <sup>-1</sup>	RAF <sub>c-ing</sub>	RAF <sub>c-derm</sub>	Subchronic RfD mg/kg-day	Subchronic RAF <sub>nc-ing</sub>	Subchronic RAF <sub>nc-derm</sub>
ARSENIC	1.5E+00	0.5	0.03	3.0E-04	0.5	0.03
CHROMIUM(III)				1.5E+00	1	0.1
CHROMIUM(VI)				2.0E-02	1	0.1
LEAD				7.5E-04	0.5	0.006
NICKEL				2.0E-02	1	0.2
VANADIUM				9.0E-03	1	0.1

**Park Visitor - Sediment: Table PSIH-6  
Cyanide Calculations**

The soil cyanide concentration limit set to protect a child park visitor against an acute, potentially lethal one-time dose of cyanide from incidental ingestion of contaminated soil is 100 mg/kg<sub>soil</sub>. This is the concentration of available cyanide in soil below which acute human health effects would not be expected following a one-time exposure. This soil concentration is calculated using the equation below with a pica-type soil ingestion of 1000 mg<sub>soil</sub> and an available cyanide dose limit of 0.01 mg/kg<sub>body weight</sub>.

MassDEP’s guidance on evaluating the risk from a one-time cyanide dose considers cyanide’s potentially lethal effects as well as information on cyanide metabolism:

Cyanides are detoxified rapidly by the body, and a large acute dose which overwhelms the detoxification mechanism is potentially more toxic than the same dose distributed over a period of hours. (MassDEP *Background Documentation for the Development of an Available Cyanide Benchmark Concentration*, originally dated October 1992, Modified August 1998)

Assessment of a potential one-time dose requires an estimate of the maximum soil concentration the receptor could contact at any one time. The average soil concentration within a typical exposure area will underestimate the potential one-time dose. Therefore, to assess the acute risk of a one-time potentially lethal dose, the EPC for cyanide should be a conservative estimate of the maximum soil concentration.

**The soil concentration limit to protect park visitors against adverse effects from an acute (one-time) exposure to cyanide is 100 mg/kg.**

**Concentration Calculation for Cyanide**

$$\text{Concentration} = \frac{\text{HQ} \times \text{Acute Dose Limit} \times \text{BW}}{\text{IR} \times \text{RAF} \times \text{Conversion Factor}}$$

Parameter	Value	Units
HQ (Hazard Quotient)	1	(unitless)
Acute Dose Limit	0.01	mg avail. CN/ kg BW
BW (Body Weight) <sub>1-2</sub>	10.7	kg
IR <sub>(1-time reasonable max)</sub>	1000	mg
Conversion Factor	1.0E-06	kg soil / mg soil
RAF	1	(unitless)

The toxicological basis for estimating an allowable one-time dose is documented in MassDEP’s 1992 *Background Documentation for the Development of an "Available Cyanide" Benchmark Concentration*, which is published at: <http://www.mass.gov/eea/docs/dep/toxics/stypes/dscyanide.pdf>

**APPENDIX E**  
**PUBLIC INVOLVEMENT**

**TRC Project No.: 414883**

February 5, 2021

Town of Weymouth  
Mayor's Office  
75 Middle Street  
Weymouth, Massachusetts 02189

Re: Notice of Availability  
Immediate Response Action Completion Report  
90 Bridge Street  
Weymouth, Massachusetts  
Release Tracking Number 4-28615

To Whom It May Concern:

TRC Environmental Corporation (TRC) has prepared this notification letter on behalf of Algonquin Gas Transmission, LLC (Algonquin) to inform you of the availability of an Immediate Response Action (IRA) Completion Report for the above-referenced release in Weymouth, Massachusetts. This notification is being provided to you in accordance with 310 CMR 40.1403(3)(c) of the Massachusetts Contingency Plan.

The IRA Completion Report can be reviewed at the Massachusetts Department of Environmental Protection (MassDEP), Southeast Regional Office, located at 20 Riverside Drive in Lakeville, Massachusetts and via the MassDEP database at <https://eeaonline.eea.state.ma.us/EEA/fileviewer/Rtn.aspx?rtn=4-0028615>. A copy of the summary of findings and statement of conclusions from the IRA Completion Report is attached to this letter.

Sincerely,

**TRC Environmental Corporation**

A handwritten signature in black ink that reads "Jim Doherty".

James Doherty, PE, LSP  
Senior Hydrogeologist

**Immediate Response Action Completion Report**  
**90 Bridge Street**  
**Weymouth, Massachusetts**  
**Release Tracking Number 4-28615**

The following general findings and conclusions can be made based on the investigations performed at Kings Cove Shoreline located at 90 Bridge Street, Weymouth, Massachusetts and summarized in the Immediate Response Action (IRA) Completion Report:

Sample results for sediment samples collected in November 2020 at a depth of 0 to 0.5 feet indicated a concentration of arsenic or total chromium that exceeded the 2-hour notification threshold as a possible Imminent Hazard (IH) in accordance with 310 CMR 40.0321(2)(b). Additional investigations delineated the extent of the exceedances as shown in IRA Completion Report.

TRC Environmental Corporation (TRC) conducted an IH evaluation which concluded that Hazard Indices and Excess Lifetime Cancer Risks for the young child recreational visitor do not exceed MassDEP Risk Limits for an IH. Therefore, an IH associated with Kings Cove shore sediment does not exist.

**TRC Project No.: 414883**

February 5, 2021

Daniel McCormack, R.S., C.H.O.  
Director Weymouth Health Department  
75 Middle Street  
Weymouth, MA 02189

Re: Notice of Availability  
Immediate Response Action Completion Report  
90 Bridge Street  
Weymouth, Massachusetts  
Release Tracking Number 4-26230

TRC Environmental Corporation (TRC) has prepared this notification letter on behalf of Algonquin Gas Transmission, LLC (Algonquin) to inform you of the availability of an Immediate Response Action (IRA) Completion Report for the above-referenced release in Weymouth, Massachusetts. This notification is being provided to you in accordance with 310 CMR 40.1403(3)(c) of the Massachusetts Contingency Plan.

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Sincerely,

**TRC Environmental Corporation**

A handwritten signature in black ink that reads "James Doherty". The signature is written in a cursive, slightly slanted style.

James Doherty, PE, LSP  
Senior Hydrogeologist

**Immediate Response Action Completion Report**  
**90 Bridge Street**  
**Weymouth, Massachusetts**  
**Release Tracking Number 4-28615**

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Sample results for sediment samples collected in November 2020 at a depth of 0 to 0.5 feet indicated a concentration of arsenic or total chromium that exceeded the 2-hour notification threshold as a possible Imminent Hazard (IH) in accordance with 310 CMR 40.0321(2)(b). Additional investigations delineated the extent of the exceedances as shown in IRA Completion Report.

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**TRC Project No.: 414883**

February 5, 2021

Public Involvement Plan Mailing List

Re: Notice of Availability  
Immediate Response Action Completion Report  
90 Bridge Street  
Weymouth, Massachusetts  
Release Tracking Number 4-26230

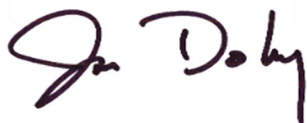
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Sincerely,

**TRC Environmental Corporation**



James Doherty, PE, LSP  
Senior Hydrogeologist



**Immediate Response Action Completion Report**  
**90 Bridge Street**  
**Weymouth, Massachusetts**  
**Release Tracking Number 4-28615**

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